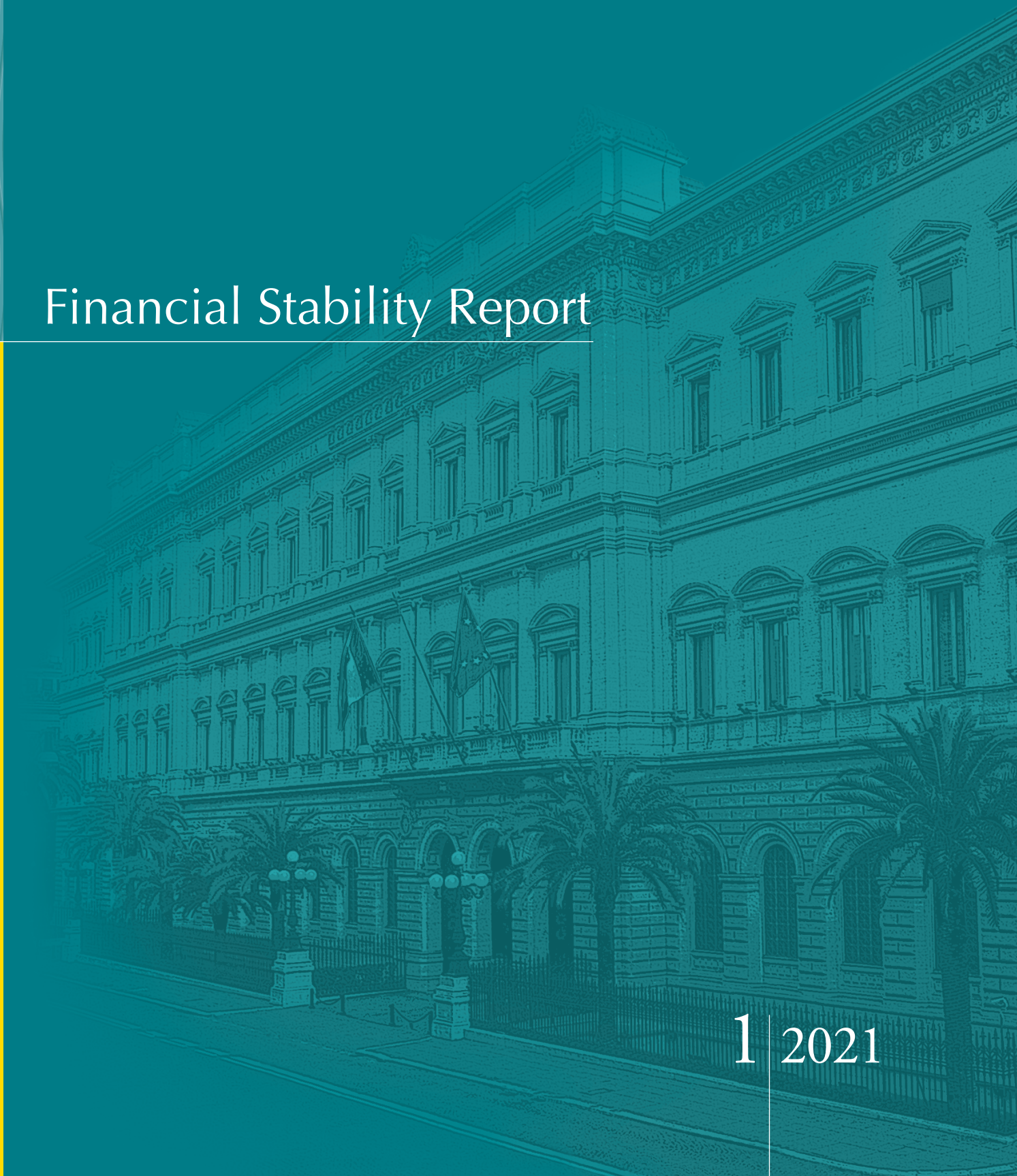
BANCA D'ITALIA
EUROSISTEMA

Financial Stability Report



April 2021

1 | 2021

BANCA D'ITALIA
EUROSISTEMA

Financial Stability Report

Number 1 / 2021
April

Other economic publications of the Bank of Italy:

Annual Report
Account of the main developments in the Italian and world economy during the year

Economic Bulletin
A quarterly report on developments in the Italian and world economy

Economie Regionali
A series of reports on the regional economies

Temi di Discussione (Working Papers)
A series of empirical and theoretical papers

Questioni di Economia e Finanza (Occasional Papers)
Miscellaneous studies of issues of special relevance to the Bank of Italy

Newsletter
News on recent research work and conferences

Quaderni di Storia Economica (Economic History Working Papers)
A series of papers on Italian economic history

These publications are available online at: *www.bancaditalia.it/publications*
Printed copies can be requested by writing to the Biblioteca Paolo Baffi at: richieste.pubblicazioni@bancaditalia.it

© Banca d'Italia, 2021
For the hard copy version: registration with the Court of Rome No. 209, 13 May 2010
For the electronic version: registration with the Court of Rome No. 212, 13 May 2010

Director
Eugenio Gaiotti

Editorial committee
Alessio De Vincenzo and Pierluigi Bologna (coordinators), Nicola Branzoli, Mario Cappabianca, Wanda Cornacchia, Maddalena Galardo, Raffaele Gallo, Teresa Griffo (IVASS), David Loschiavo, Gaetano Marseglia, Arianna Miglietta, Stefano Nobili, Fabio Parlapiano, Stefano Pasqualini (IVASS), Tommaso Perez, Anna Rendina, Alessandro Schiavone, Marco Taboga

Boxes
Stefano Antonelli, Simone Auer, Giacomo Ceccobelli, Antonio M. Conti, Laura Coppola, Wanda Cornacchia, Antonio De Socio, Maddalena Galardo, Raffaele Gallo, David Loschiavo, Giacomo Manzelli, Giulia Mele, Simone Narizzano, Tommaso Orlando, Federica Pallante (IVASS), Daniele Piras, Dario Portioli, Vittorio Siracusa

Editorial assistants for the Italian version
Alessandra Giammarco, Valentina Anna Elda Memoli, Silvia Mussolin

Charts and figures
Giuseppe Casubolo, Roberto Marano

The English edition is translated from the Italian by the Language Services Division of the Secretariat to the Governing Board.

Address
Via Nazionale 91 – 00184 Rome – Italy

Telephone
+39 06 47921

Website
http://www.bancaditalia.it

All rights reserved. Reproduction for scholarly and non-commercial use permitted, on condition that the source is cited.

ISSN 2280-7616 (print)
ISSN 2280-7624 (online)

Based on data available on 23 April 2021, unless otherwise indicated.

Designed and printed by the Printing and Publishing Division of the Bank of Italy

CONTENTS

OVERVIEW 5

1 MACROECONOMIC RISKS AND RISKS BY SECTOR 7

1.1 Macroeconomic risks 7

1.2 Households and firms 15

2 FINANCIAL SYSTEM RISKS 26

2.1 The money and financial markets 26

2.2 Banks 34

2.3 Insurance companies and the asset management industry 47

3 MACROPRUDENTIAL MEASURES 58

SELECTED STATISTICS 63

LIST OF BOXES

Lending to firms in Italy and in the main euro-area countries during the pandemic 11

The liquidity of Italian households during the pandemic 18

The effects of the pandemic on the balance sheets and riskiness of firms in the various economic sectors 21

The first BTP Green issue 29

Management and measurement of credit risk for loans subject to debt moratoriums 37

The performance of operations backed by guarantee schemes for the securitization of bad loans 39

The macroprudential measures proposed by EIOPA in the 2020 review of Solvency II 51

The tensions on the financial markets in 2020:
indications for non-bank intermediation and financial stability 53

The creation of macroprudential space 59

The introduction of new macroprudential instruments in Italy 61

SYMBOLS AND CONVENTIONS

Unless otherwise specified, Bank of Italy calculations; for Bank of Italy data, the source is omitted.

In the tables:

– the phenomenon does not exist;

.... the phenomenon exists but its value is not known;

.. the value is nil or less than half of the final digit shown;

:: not statistically significant;

() provisional.

In the figures with different right- and left-hand scales, the right-hand scale is identified in the notes.

For the abbreviations of the names of European countries used in this publication please refer to the EU's *Interinstitutional Style Guide* (http://publications.europa.eu/code/en/en-000100.htm).

OVERVIEW

The global macroeconomic situation improved in the early months of the year, especially in the advanced economies, following the roll-out of the vaccination campaign and new large-scale interventions by the authorities. Nevertheless, the risks to financial stability remain high, owing to the still uncertain course of the pandemic and its economic consequences.

In Italy, as in the other EU countries, financial market conditions remain relaxed. The rise in long-term real interest rates in the United States has not spilled over to the euro area, in part thanks to the intervention of the ECB Governing Council, which since March has increased asset purchases under the pandemic emergency purchase programme (PEPP). Conditions are favourable on the government securities market; purchases by non-residents rose in the first two months of 2021.

The impact of the pandemic on the economic situation of households has been highly diversified and has led to a significant increase in income inequality. Overall, however, loan repayment capacity has remained good because of the low interest rates, the debt moratoriums and the other support measures. The share of debt held by financially vulnerable households, while rising, remains low and the risks to the financial system are limited.

Despite the economic policy measures adopted and the favourable credit access conditions, the repercussions of the pandemic crisis on the profitability and indebtedness of firms are extensive and very heterogeneous across the different economic sectors. The risks stemming from an increase in firms' vulnerability, especially in the sectors hit hardest by the pandemic, remain high, but they can be mitigated by the economic recovery and by monetary and fiscal policies. The support measures for liquidity and credit access are still necessary: removing them too soon could increase the difficulties for firms that have a good chance of recovering. Looking ahead, a gradual and targeted recalibration of the measures will make it possible to minimize the risks to financial stability.

The deterioration in credit quality continues to be the main risk to which banks are exposed. The new non-performing loan rate has risen in recent months, especially for exposures to firms in the sectors that have been hit hardest by the crisis. The loan loss provisions for performing loans have continued to increase, contributing to the sharp drop in profitability in 2020. The uncertain situation calls for considerable prudence and the stepping up of decisions on provisioning, especially on the part of the less significant banks. Last year the pandemic did not slow down plans to dispose of non-performing loans.

Capital adequacy improved further in the second half of 2020, for both significant and less significant banks, mainly thanks to the rebalancing of portfolio assets towards less risky exposures. The gap between the average capital ratio of Italian significant banks and that of the significant banks of the countries participating in the SSM was practically nil.

In the second half of last year, the average solvency ratio of insurance companies rose, reaching a higher level than that at end-2019, mainly owing to the increase in the value of the securities portfolio. Profitability diminished slightly during the year. The degree of liquidity of insurance company assets remains adequate.

Net subscriptions of open-end, alternative and real estate investment funds have continued to grow in recent months. The share of open-end investment funds that are vulnerable to high demand for redemptions has increased, but is still low. The risks to financial stability from the sector remain limited.

1 MACROECONOMIC RISKS AND RISKS BY SECTOR

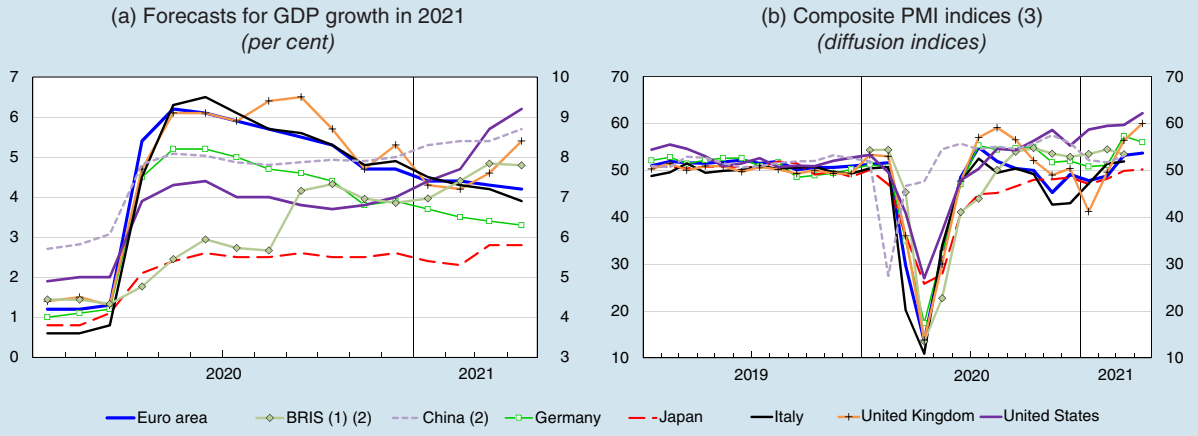
1.1 MACROECONOMIC RISKS

Global risks and euro-area risks

The global macroeconomic outlook has improved in the early months of the year, above all in the advanced economies, and especially in the United States, thanks to the roll-out of the vaccination campaign and the approval of a very substantial fiscal stimulus package (Figure 1.1.a). In the emerging and developing countries, economic conditions vary: in China, growth has strengthened thanks to the efficient handling of the pandemic and to countercyclical policies, while in other economies the recovery is proving slower, owing to limited room for fiscal manoeuvre and vaccine shortages. The cyclical indicators confirm an expansion in activity, most notably in the United States, the United Kingdom, and in manufacturing, while the service sector continues to be affected by the restrictions adopted to curb by the pandemic (Figure 1.1.b).

Figure 1.1

Growth expectations and cyclical indicators
(monthly data)



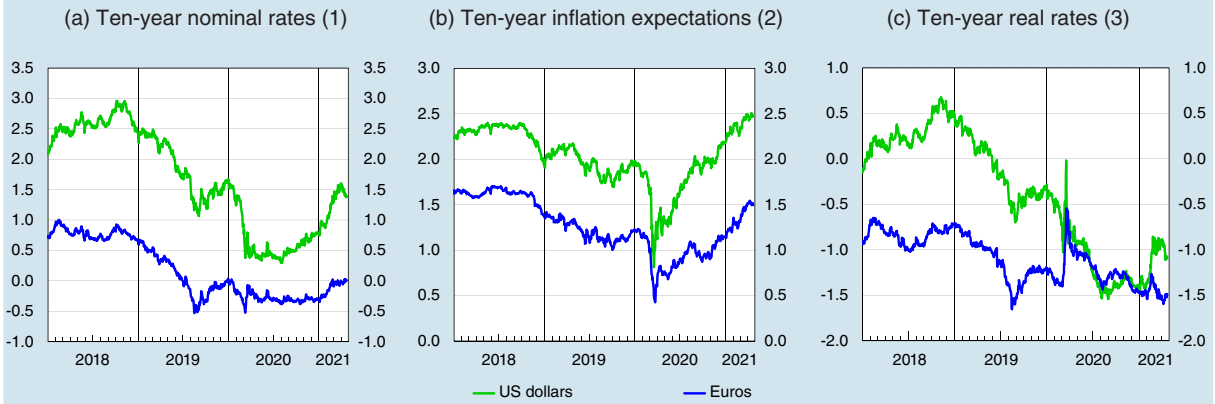
Sources: Based on data from Consensus Economics, ISM, Markit and Refinitiv.
(1) Average of the forecasts for Brazil, Russia, India, and South Africa (BRIS), weighted on the basis of each country's GDP in 2019 (IMF, World Economic Outlook Database, April 2021). – (2) Right-hand scale. – (3) Composite diffusion indices of economic activity in the various sectors based on the purchasing managers' indices (PMI). Values greater (lower) than 50 are compatible with an expansion (contraction) of GDP compared with the previous month.

Notwithstanding the signs of a recovery, the difficulties inherent in mass vaccination campaigns and uncertainty about the course of the pandemic due to the spread of new variants of the virus are weighing on short-term growth forecasts. An additional risk factor is linked to firms' financial situations, which in the future could be affected by rising debt levels.

Since last autumn, nominal long-term interest rates have increased significantly in the United States and, to a lesser extent, in the euro area (Figure 1.2.a); the marked recovery in inflation expectations was a contributory factor in both areas (Figure 1.2.b). The rise in real returns in the United States (Figure 1.2.c) did not extend to the euro area, partly because of the intervention by the European Central Bank. In March, the Governing Council decided to step up the pace of public and private sector securities purchases under the pandemic emergency purchase programme (PEPP) and confirmed its commitment to maintaining highly accommodative financial conditions until the impact of the pandemic has subsided (see *Economic Bulletin*, 2, 2021).

Figure 1.2

Nominal interest rates and their breakdown into expected inflation and real interest rates
(percentage points)



Source: Based on Bloomberg data.
(1) Ten-year zero coupon rate derived from the overnight indexed swaps (OIS) curves. – (2) Rate on ten-year zero coupon inflation swaps. – (3) The real rate is calculated as the difference between the nominal and inflation rates (see Notes 1 and 2).

Conditions on the government securities markets in the euro area continued to be relaxed: on average, trading liquidity and spreads remain close to the levels observed prior to the pandemic crisis (Figure 1.3.a). The purchase programmes conducted by the ECB help to limit the risks of a rise in volatility and a deterioration of liquidity conditions.

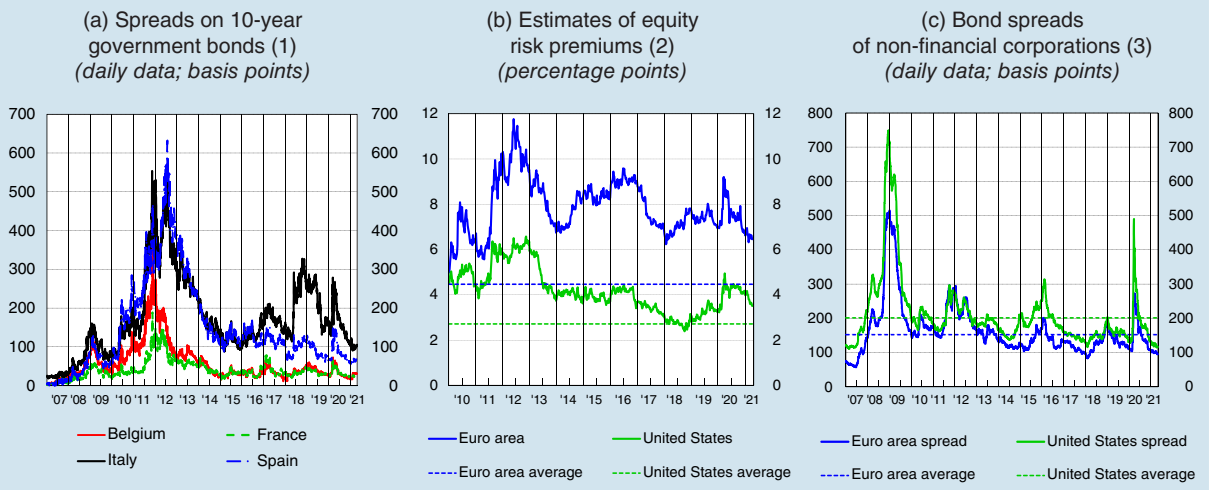
The main stock market indices have risen, supported by brighter earnings prospects: based on the expectations of the analysts polled by the Institutional Brokers' Estimate System (IBES), this year corporate earnings will return to virtually the same levels as those recorded in 2019 in the euro area (in the United States, they are expected to be about 10 per cent higher than in 2019).

According to our estimates, stock prices were also driven upward by the marked reduction in risk premiums (Figure 1.3.b), which nonetheless remain above their average long-term values, pointing to low risks of overvaluation. While relatively low on average, stock price volatility rose temporarily at the end of February, in concomitance with the sharper increase in long-term interest rates in the United States.

Some stock markets, especially the US one, registered spikes in volatility involving individual listings hit by massive trading orders of a speculative nature, not motivated by considerations about the fundamentals of the companies involved. Small investors operating via online trading platforms and coordinating their actions on shared instant messaging platforms placed the orders. In some instances, clearing houses were forced to significantly raise margin requirements to trade in the shares hardest hit by the speculation; some investment funds that were particularly exposed to these securities recorded massive losses.

Figure 1.3

Risk premiums on government securities, shares and bonds



Sources: ICE Bank of America Merrill Lynch and Refinitiv.
(1) Differences between the yields on the benchmark 10-year government bonds of the countries indicated in the key below the figure and those of the corresponding German Bund. – (2) For S&P 500 (US) and Datastream EMU Total Market (euro area) indices, ratio of the 10-year moving mean of average earnings per share to the value of the stock index (both at constant prices). We deduct from the resulting ratio, which is an estimate of the expected real return on stocks, the real return on inflation-indexed 10-year government bonds to obtain an estimate of the equity risk premium. The dashed lines indicate the averages of the risk premiums from 1993 to 2021. – (3) Spreads refer to BBB-rated bonds issued by non-financial corporations. The dashed lines indicate the averages of the spreads from 2000 to 2021.

The supervisory authorities, including the European Securities and Markets Authority (ESMA),[1] are paying growing attention to the risk that similar episodes might happen again in the future.

Spreads on corporate bonds have fallen to levels well below their historical average, both in the investment grade sector (Figure 1.3.c) and in the high yield sector, while downgrades and default rates, though in decline and below those forecast at the start of last year, continue to be high (see Section 2.1). Based on our models, in the euro area and in the United States, spreads on investment grade securities are around 30 per cent below the levels historically associated with similar conditions to today, in respect of the riskiness of the debt securities, interest rate levels and the phase of the economic cycle. The risk of sharp increases in spreads could be linked to premature rises in interest rates, which in turn could lead to a significant increase in the debt service burden for firms and reduce their solvency.

In the second half of 2020, the average profitability of banks in the European Union continued to remain at very low levels, but varied widely among individual banks. Contributory factors included the significant decline in interest rate margins and loan loss provisions. The latter, while falling, are still above what they were prior to the pandemic. Banks' capital adequacy, measured by the ratio of the highest loss-absorbing capital to risk-weighted assets, nevertheless continued to strengthen, in part thanks to the decisions to limit the distribution of profits to shareholders. These improvements were reflected in the dynamics of banks' credit default swap (CDS) premiums, which declined to levels similar to those observed at the end of 2019. Bank stock prices recorded marked increases, linked to expectations of a strong recovery in earnings this year. The very heavy losses incurred at the end of March by some global systemically important institutions, following the collapse of Archegos, a non-bank intermediary in the United States specialized in highly leveraged transactions, did not affect the

[1] ESMA statement, 'Episodes of very high volatility in trading of certain stocks'. 17 February 2021.

earnings expectations of the EU banking system. This episode confirms the need to improve reporting and disclosure requirements for non-bank intermediaries, by continuing down the path of regulatory reforms promoted at international level by the Financial Stability Board (FSB); see the box 'The tensions on the financial markets in 2020: indications for non-bank intermediation and financial stability', in Chapter 2.

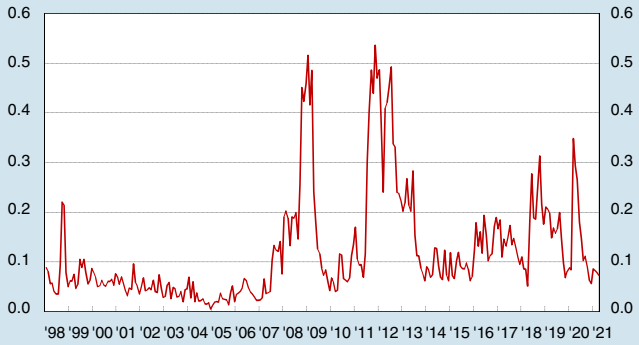
Macrofinancial conditions in Italy

In Italy, the risks to financial stability are mitigated by the economic support measures, but there is still a high degree of uncertainty about longer-term dynamics. After falling close to the lowest levels recorded in ten years in December, the indicator of financial stress turned upward slightly, but nonetheless remains at low levels (Figure 1.4.a). The risks of contagion in the banking sector and market risks are relatively low, while that stemming from macroeconomic conditions is high (Figure 1.4.b).

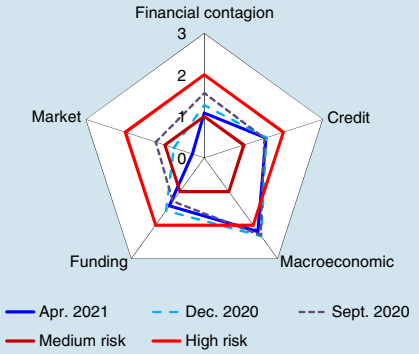
Figure 1.4

Synthetic indicators of risks for financial stability

(a) Indicator of financial stress for Italy (1)
(monthly data; index number)



(b) Aggregate indicators of risk (2)
(points on a scale of 0 to 3)



Source: Based on Refinitiv data.
(1) The index ranges from 0 (minimum risk) to 1 (maximum risk). For further details, see A. Miglietta and F. Venditti, 'An indicator of macro-financial stress for Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 497, 2019. – (2) The aggregate indicators are based on the analytical framework to assess risks described in F. Venditti, F. Columba and A.M. Sorrentino, 'A risk dashboard for the Italian economy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 425, 2018. Values between 0 and 1 indicate low risk, between 1 and 2 medium risk, and between 2 and 3 high risk.

The economic outlook depends on the rate of contagion and on the vaccination campaign. The extension to June 2021 of a number of support measures, including the moratorium and public guarantee schemes, prevented a still-weak economy from damaging firms that are fundamentally sound; as uncertainty abates, the measures can become more selective, to avoid the risk of an inefficient allocation of resources. Over the medium term, as in the main European countries, risks stem from the vulnerabilities due to the higher indebtedness of firms in the sectors hardest hit by the pandemic, which could also impact the quality of banks' assets (see Sections 1.2 and 2.2).

The indicators of the Italian financial cycle have been affected by the measures adopted to combat the impact of the pandemic. Lending continues to grow at a solid pace for both households and non-financial corporations (see the box 'Lending to firms in Italy and in the main euro-area countries during the pandemic').

LENDING TO FIRMS IN ITALY AND IN THE MAIN EURO-AREA COUNTRIES DURING THE PANDEMIC[1]

During the first wave of the pandemic, loans to non-financial corporations accelerated sharply in the four main euro-area countries, though at different paces. In May 2020, the three-month growth rate peaked at 13.0 per cent in Italy, 15.1 per cent in Germany and at even higher values, 31.7 per cent and 43.0 per cent, in France and Spain respectively (on a seasonally adjusted and annualized basis; Figure A).

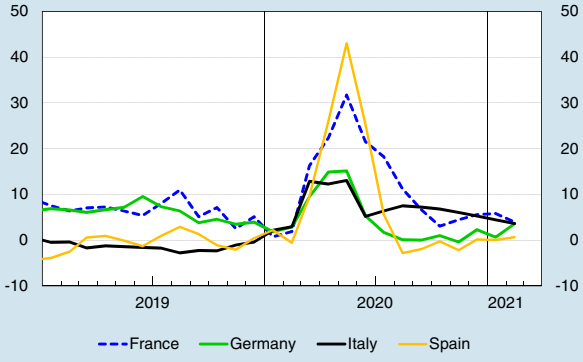
During this phase, the expansion of credit reflected the marked increase in demand for funds by firms, on the one hand, to meet liquidity needs stemming from the fall in cash flows and, on the other, to build up precautionary buffers to address uncertainties about the economic outlook. According to the quarterly euro area bank lending survey (BLS),[2] in all countries the sharp increase in demand for loans was predominantly for those backed by State guarantees (Figure B), which played a vital role in sustaining the flow of credit to firms.

Up to mid-2020, credit standards for new loans to firms were eased considerably in France, Italy and Spain, while there was a small tightening in Germany; monetary, prudential and fiscal policy measures contributed everywhere, especially those designed to support liquidity.

During the second phase of the health emergency, growth in lending to non-financial corporations was uneven across countries: since August, it has been weak in Germany and Spain, while it has

Figure A

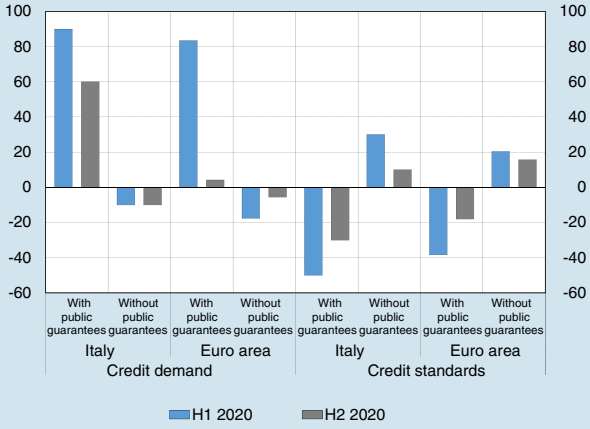
Loans to non-financial corporations in the main euro-area countries (1)
(monthly data; per cent)



Sources: Bank of Italy and ECB.
(1) Annualized quarterly percentage changes net of reclassifications, exchange rate variations, value adjustments, and other variations not due to transactions. Include bad debts, repos and loans not reported in banks' balance sheets because they have been securitized. Seasonally adjusted.

Figure B

Demand and supply of credit for loans with and without public guarantees linked to the COVID-19 emergency (1)
(half-yearly data; net percentages)



Source: BLS.
(1) Positive values indicate supply restriction/demand expansion compared with the previous semester. The net percentage is defined as the difference between the share of banks that indicate a change in a given sign (for example, an 'increase in demand' and a 'tightening of standards') and the share of those that indicate a change of opposite sign (i.e. a 'decrease in demand' and an 'easing of standards'). The range of variation of the index is from -100 to 100.

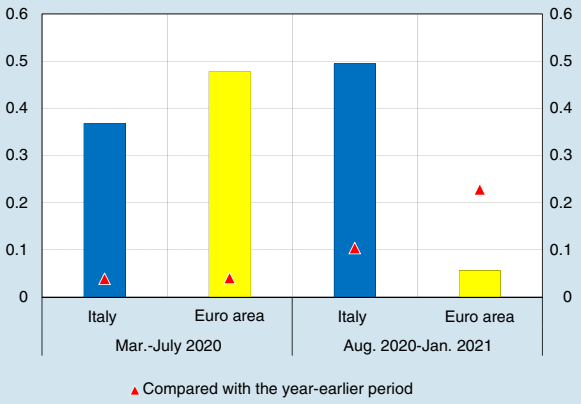
1 By Simone Auer and Antonio M. Conti.
2 ECB, 'January 2021 euro area bank lending survey', press release, 19 January 2021.

remained robust in France and Italy, though less so than in the spring.[3] In the second half of the year, the credit standards for new loans to firms were tightened overall in France, Spain and Germany, while they were still favourable in Italy. Different trends in supply standards in the various countries were probably determined by the composition of credit flows. In Italy, recourse to State-guaranteed loans was more intensive in this phase, following the initial delays in the implementation of the liquidity support measures.[4]

From the summer onwards, demand dynamics were uneven. Of the banks interviewed in the survey, only the Italian ones reported a further marked expansion in demand for loans by non-financial corporations, supported by the need to satisfy liquidity needs and to build up precautionary buffers.

Figure C

Correlation between cumulative flows of loans and deposits of non-financial corporations (1)
(indices)



Sources: Based on Bank of Italy and ECB data.
(1) Data at individual bank level. The correlation is computed between the net cumulative flows of loans and deposits of non-financial corporations as a share of the total assets of banks in the month prior to the period considered.

More sustained demand for precautionary funds by Italian firms is confirmed by an analysis of the correlation between the accumulated flows of loans and deposits at individual bank level.[5] A positive correlation emerged during the early phase of the pandemic in all the main euro-area countries, while in the subsequent period (from August 2020 to January 2021) this was apparent only in Italy (Figure C).

This may have reflected the need for Italian firms to continue to build up their liquidity reserves following initial delays in implementing the support measures and lower recourse to alternative sources of financing to bank credit. Between March 2020 and January 2021, Italian firms recorded net issues of debt securities and listed shares amounting to around €12 billion, against €74 billion and €64 billion recorded by French and German firms.

[3] In the period between August 2020 and February 2021, the annualized rate of growth in lending to non-financial corporations in Italy and France was equal to 5.3 and 4.6 per cent respectively (seasonally adjusted data); in the same period in Germany and Spain, growth in lending was instead 1.6 per cent and close to zero respectively.

[4] The overall amounts of loans with public guarantees disbursed between July and December came to around €90, €30, €23 and €20 billion in Italy, Spain, France and Germany respectively; up until June, the corresponding values were equal to €38, €85, €107 and €38 billion respectively. On the causes of the delays in the disbursement of guaranteed loans, see 'The implementation of the measures concerning public guarantees for loans as provided by Decree Laws 18/2020 and 23/2020', testimony by P. Angelini, Director General for Financial Supervision and Regulation, before the parliamentary committee of inquiry into the banking and financial system, Rome, 11 June 2020 (only in Italian).

[5] The analysis is based on the monthly data of harmonized individual bank balance sheets referring to a representative sample of banks in France, Germany and Spain, and to the universe of reporting intermediaries in Italy.

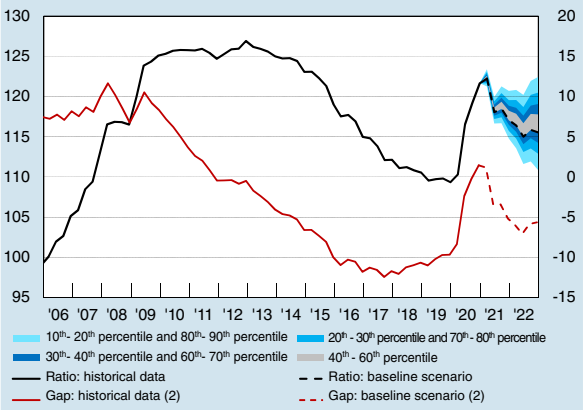
The difference between the credit-to-GDP ratio and its long-run trend (credit-to-GDP gap) turned positive, driven by the increase in loans and fall in GDP. Nonetheless, the risks of a prolonged expansion of the financial cycle appear limited: in the course of 2021, the credit-to-GDP gap is expected to turn negative, reflecting the slowing of credit and the return to GDP growth (Figure 1.5).

In April, the Government approved the 2021 Economic and Financial Document, updating its estimates and objectives for the public accounts. Planned debt for this year is equal to 159.8 per cent of GDP, up by 4 percentage points of GDP compared with 2020. In the subsequent three years, the ratio of debt to GDP should fall gradually, thanks to an average debt service burden below the nominal growth rate of the economy.

The measures adopted to counter the economic effects of the pandemic are temporary and do not call into question the sustainability of Italy's public finances. However, the stabilization of the debt at very high levels would leave the country vulnerable to risks stemming from tensions on the financial markets. Looking ahead, bringing the debt-to-GDP ratio back to a downward path will require a return to growth, relaxed financial conditions and, when the macroeconomic situation permits, a gradual and progressive fiscal adjustment.[2]

Figure 1.5

Credit in relation to GDP and deviation from the trend (1)
(quarterly data; values and percentage points)



Sources: Based on Bank of Italy and Istat data.
(1) The distribution of the probabilities of the projections take account of the asymmetric shocks to the main risk factors, according to the procedure described in C. Miani and S. Siviero, 'A non-parametric model-based approach to uncertainty and risk analysis of macroeconomic forecasts', Banca d'Itaila, Temi di Discussione (Working Papers), 758, 2010. – (2) For the methodology used to calculate the credit-to-GDP gap, see P. Alessandri, P. Bologna, R. Fiori and E. Sette, 'A note on the implementation of a countercyclical capital buffer in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 278, 2015. Right-hand scale.

The Italian economy's ability to cope with the pandemic shock has been helped by: low household indebtedness and the better financial situation of firms than in the past (see Section 1.2); the high average residual maturity of public-sector securities (see Section 2.1); the increase in banks' capital adequacy (see Section 2.2); low liquidity risks in the asset management industry (see Section 2.3); and the positive net international investment position (see Table A1 in Selected Statistics).

Real estate markets

In the euro area, the pandemic has had a different impact on the residential and non-residential property markets. In the second half of 2020, house prices continued to expand in the euro area as a whole, and in the leading countries (Figure 1.6.a). The weak macroeconomic situation instead had negative repercussions on the commercial sector, where there was a sharp slowdown in prices.

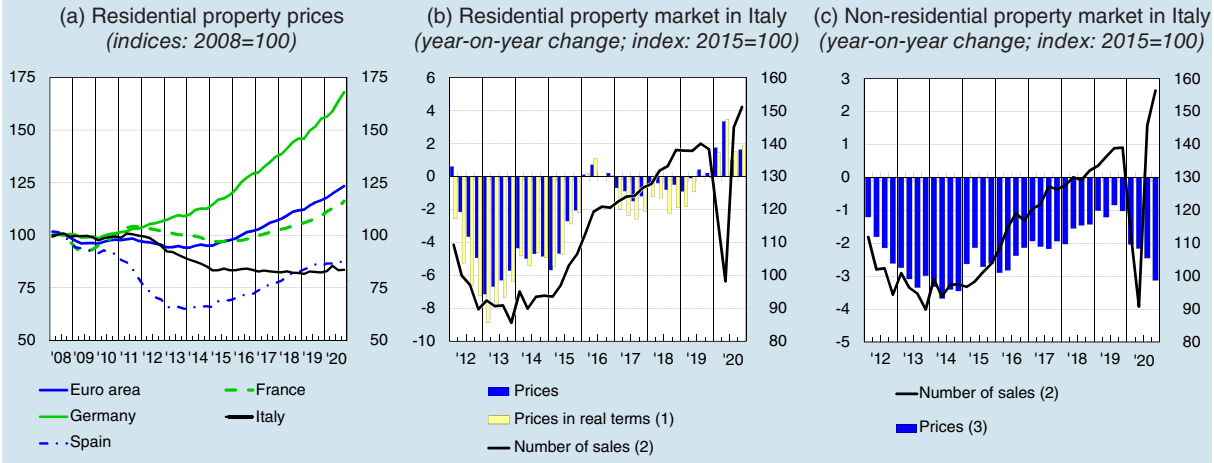
In Italy, sales of residential properties rose markedly in the second half of 2020, though this did not fully offset the sharp fall recorded in the first two quarters: the variation for the year was negative overall (-7.6 per cent). Prices continued to increase moderately (Figure 1.6.b); according to our estimates, they will remain stable this year.

Uncertainty surrounds the market's outlook. The expectations of the real-estate agents interviewed in January-February as part of our regular surveys improved compared with the previous survey, but remain predominantly pessimistic. The number of notices published on the digital platform Immobiliare.it indicate that in the first quarter of 2021, there was continued strong demand for housing.

[2] 'Preliminary hearing on the 2021 Economic and Financial Document', testimony by E. Gaiotti, Head of the Economics, Statistics and Research Directorate General at the Bank of Italy, Chamber of Deputies, Rome, 20 April 2021 (only in Italian).

Figure 1.6

The property market in Italy and the euro area
(quarterly data)



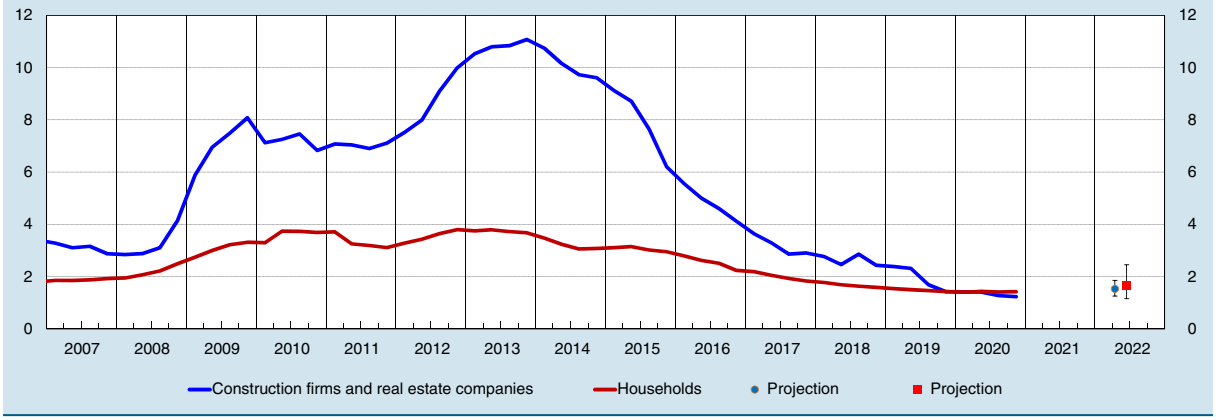
Sources: Based on data from the Bank of Italy, Istat, Osservatorio del Mercato Immobiliare (OMI), Nomisma and Scenari Immobiliari.
(1) Data deflated using the change in consumer prices. – (2) Data adjusted for seasonal and calendar effects. Right-hand scale. – (3) The indicator, which is still being tested, uses data drawn from transactions already concluded on the market.

Despite recovering in the second half of 2020, sales of non-residential properties fell by 7.7 per cent for the year as a whole. The decline in prices, which were already trending down before the public health emergency, steepened (Figure 1.6.c).

In the second half of 2020, the indicators that measure banks' vulnerability stemming from property exposures remained at historically low levels, continuing to benefit from the moratorium measures (Figure 1.7). Our one-year ahead projections point to a slight rise in the indicators, which nonetheless are expected to remain well below the peak recorded following the sovereign debt crisis in the euro area.

Figure 1.7

Indicators of bank vulnerability stemming from the real estate market (1)
(quarterly data; per cent)



(1) Bank vulnerability is measured by the ratio of the flow of new non-performing loans in the last 4 quarters to the average of the banks' capital and reserves in the same period. For the projection for the 2nd quarter of 2022, the graph shows the median and the 10th and 90th percentiles. For the methodology, see F. Ciocchetta, W. Cornacchia, R. Felici and M. Loberto, 'Assessing financial stability risks from the real estate market in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 323, 2016, and F. Ciocchetta and W. Cornacchia, 'Assessing financial stability risks from the real estate market in Italy: an update', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 493, 2019.

1.2 HOUSEHOLDS AND FIRMS

Households

The impact of the pandemic on the economic situation of Italian households has been very uneven: it has mainly affected people with less stable jobs and those working in the most exposed sectors, leading to a significant increase in income inequality. Despite this, debt repayment capacity has remained good overall, favoured by low interest rates and the debt moratoriums. In 2020 the fall in disposable income was less marked than the fall in GDP, thanks to wage supplementation schemes and the other support measures. The strong increase in saving that followed has fuelled investments in more liquid instruments. Looking forward, while some of the most indebted households could be affected by the cyclical developments, nevertheless the share of debt at risk of default remains low. The risks for financial intermediaries stemming from their exposure to the household sector continue to be limited.

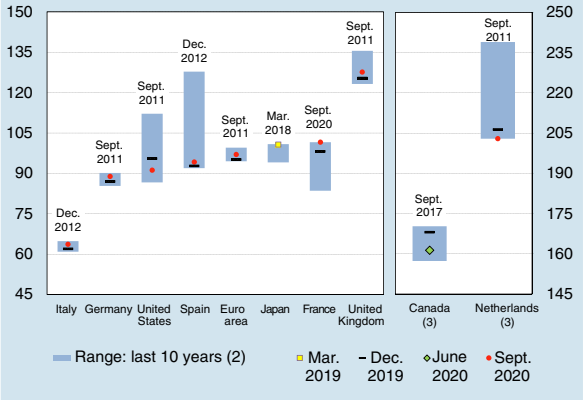
In December 2020, the ratio of household debt to disposable income, equal to 64.7 per cent, was 2.6 percentage points higher than at the end of 2019, but was still very low by international standards (the latest data available for the comparison refer to September; Figure 1.8). After the sharp deceleration in the first half of 2020, in the second half of the year and in the early months of 2021 bank lending grew at a slower pace than before the crisis (1.2 per cent on an annual basis in February 2021, down from 3.2 per cent in the same month in 2020). The sharp contraction in consumer credit (down by 1.9 per cent in February 2021 against an increase of 8.0 per cent a year earlier) was offset by the growth in mortgages, which returned close to that preceding the pandemic (2.4 per cent in February 2021), in connection with the strong recovery in house sales in the second half of 2020 (see Section 1.1). Data from the digital platform MutuiOnline.it, suggest that more than 85 per cent of new mortgages were granted to workers with permanent employment contracts, whose income is less exposed to the effects of the crisis.

The average rate of interest on outstanding loans, which declined further, reached a low of 2.8 per cent in February. Households' exposure to the risk of market rates rising is limited by the composition of lending. The share of fixed rate mortgages peaked at the end of 2020 (equal to 52 per cent of the stock, up by 6 percentage points since December 2019). Households predominantly choose fixed rate loans for consumer credit as well (58 per cent of loans in the last five years).

In 2020, the further decline in interest rates and recourse to the moratoriums limited the consequences of the contraction in disposable income (-2.8 per cent) for loan repayments: the non-performing rate for loans to households remained in line with the very low values recorded on the eve of the crisis, despite the

Figure 1.8

Household debt (1)
(per cent of gross disposable income)



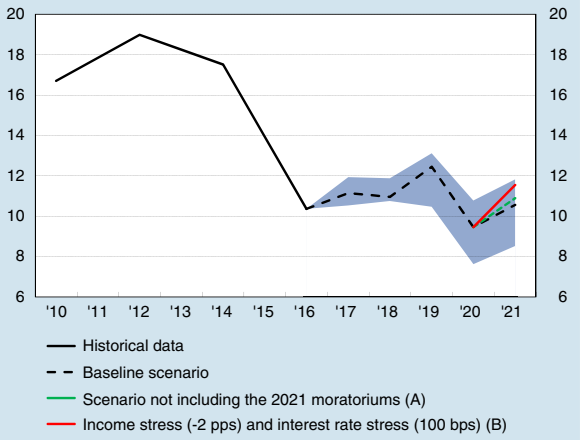
Sources: Bank of Italy and Istat for Italy; ECB for the euro-area countries; Office for National Statistics and Bank of England for the United Kingdom; Federal Reserve System and Bureau of Economic Analysis for the United States; OECD for Canada and Japan.
(1) End-of-period data for consumer and producer households; for the United States for consumer households only. For Canada and Japan the latest available data are for Q2 2020 and Q1 2019 respectively. – (2) The range is defined by the values of the upper and lower bounds of the household debt ratio taken between Q3 2011 and Q3 2020. The date above each range indicates when the ratio reached its peak value for the period. – (3) Right-hand scale.

slight increase in the fourth quarter of the year (1.0 per cent; see Section 2.2). The data from the Regional Bank Lending Survey show that repayments are now being made regularly for almost 90 per cent of mortgage loans that, at the end of 2020, had reached the end of the repayment suspension period under the moratoriums and bilateral agreements with the banks. Preliminary data suggest that, in the early months of 2021, there was a further slight deterioration in credit quality.

If households' income growth were to be weaker than indicated by the latest estimates, this could adversely affect their capacity to honour their financial commitments. On the basis of the findings of the Special Survey of Italian Households,[3] around 30 per cent of indebted households reported difficulties in repaying their loans because of the pandemic and a significant number of them had obtained at least one form of income support in the three months preceding the interview. Difficulties vary significantly according to the employment situation of the respondents and the economic sector in which they work – the problems are greater for self-employed workers, fixed-term or part-time employees and those who work in the sectors worst hit by the crisis (wholesale and retail trade, repairs, hotels and restaurants). The difficulties in making repayments encountered by these households, some of which have already applied for a suspension of repayments, could be further relieved by the recent extension of the moratorium on mortgage repayments.[4]

Figure 1.9

Share of debt held by vulnerable households (1)
(annual data; per cent)



Source: Based on the Survey on Household Income and Wealth (SHIW).
(1) Households are considered vulnerable when their debt-service ratio is above 30 per cent and their equivalized disposable income is below the median. The latest SHIW data available refer to 2016. The shaded area represents the interval between the 10th and the 90th percentiles of the probability distribution in the simulations. Compared with the baseline scenario, in 2021, scenario (A) does not include the new moratoriums in 2021; (B) the 3-month Euribor, the 10-year interest rate swap (IRS) and the interest rate on consumer credit are 100 basis points higher and the growth rate of nominal income is 2 percentage points lower.

The projections of the Bank of Italy's microsimulation model,[5] which are based on a scenario consistent with the latest macroeconomic forecasts, indicate that at the end of 2021, the share of vulnerable households and the ratio of their debts to the total would increase to 2.0 and 10.6 per cent respectively (Figure 1.9). This increase reflects the hypothesis of the ending of

[3] In February-March, the Bank of Italy conducted the fourth edition of its Special Survey of Italian Households to collect information on the impact of the COVID-19 pandemic on the economic situation and expectations of households. More than 2,800 households were interviewed.

[4] Law 176/2020, which converted, with amendments, Decree Law 137/20 (the 'Relief Decree'), provides for an extension to 9 April 2022 of the date by which to apply for the benefits included in the solidarity fund for first-home mortgage loans, even if they have been being repaid for less than one year. The deferment excludes some categories that had been able to access benefits for the first time during 2020, amongst which: self-employed workers, professionals and small business owners, mortgage holders with loans exceeding €250,000; and mortgage holders with a financial situation indicator (ISEE) of over €30,000. The extension of access to the fund was instead made permanent in the event of a job being suspended for at least 30 consecutive working days and a reduction of working hours of at least 20 per cent of the total for a period equal to or greater than 30 working days. The Italian Banking Association (ABI) also extended the date (to 31 March 2021) by which a bank must make a decision about granting a moratorium, in such cases the payment suspension period must not exceed nine months. It will therefore be possible to access these benefits during all of 2021.

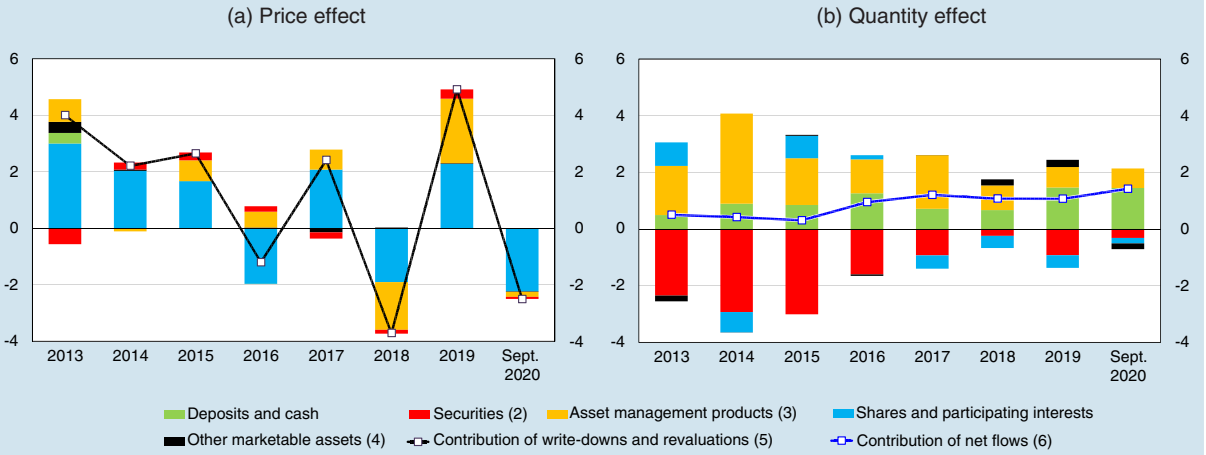
[5] For further details on the microsimulation model, see C.A. Attinà, F. Franceschi and V. Michelangeli, 'Modeling households' financial vulnerability with consumer credit and mortgage renegotiations', *International Journal of Microsimulation*, 13, 2020, 67-91, also published as Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 531, 2019.

the debt moratoriums for households that had obtained the suspension of repayments in 2020[6] and an increase in credit, which would more than offset the recovery in income and the effect of interest rates continuing to be particularly low. In the absence of the possibility, provided by the measures approved last December, of applying for repayments to be suspended for some households in 2021 as well, the debt of vulnerable households would be greater by about 0.5 percentage points. Should macroeconomic developments be more unfavourable, the share of debt at risk would reach 11.5 per cent of the total,[7] in any case remaining at a low level compared with the situation during the sovereign debt crisis.

The soundness of households' financial conditions benefits from the financial assets they hold, which remain high by international standards despite a reduction of 1.0 per cent in the first nine months of 2020. The contraction reflected the loss in value recorded for shares and participating interests (Figure 1.10.a), but it was largely offset by the sharp increase in saving (see *Economic Bulletin*, 4, 2020), which was concentrated above all in the most liquid instruments, chosen mainly for precautionary reasons (Figure 1.10.b). The sustained growth in bank and postal deposits continued in the fourth quarter of 2020 and in the early months of 2021 and appears to have involved households that before the crisis had very limited liquidity (see the box 'The liquidity of Italian households during the pandemic').

Figure 1.10

Contributions to changes in gross financial wealth (1)
(percentage points)



(1) End-of-period data for consumer households, producer households and non-profit institutions serving households. Provisional data for Q3 2020. – (2) Public sector, bank and corporate bonds. – (3) Investment fund units, life insurance, pension funds and supplementary pension funds, excluding severance pay (TFR). – (4) Commercial loans, TFR and other minor items. – (5) Total contribution of write-downs and revaluations of financial assets. – (6) Total contribution of net flows of investments and divestments of financial assets.

6 For details on how households with a moratorium on their mortgages are identified, see F. Ciocchetta, V. Michelangeli, R. Pico and A. di Salvatore, 'Impact of the mortgage moratoriums on the financial vulnerability of households', *Note Covid-19*, Banca d'Italia, 22 March 2021 (only in Italian).

7 Compared with the baseline scenario, this assumes a rise in interest rates of 100 basis points and a reduction of 2 percentage points in the growth rate of nominal income (around one standard deviation of the respective yearly variations recorded in the period 2003-19).

THE LIQUIDITY OF ITALIAN HOUSEHOLDS DURING THE PANDEMIC[1]

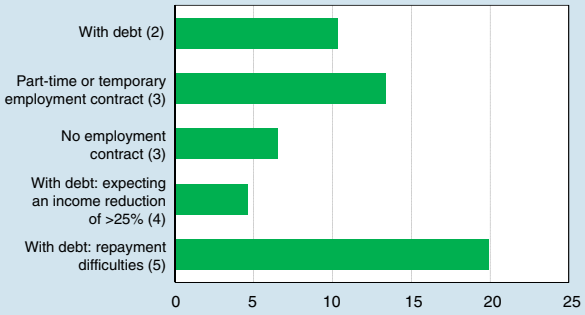
Households' liquid assets allow them to cope with unexpected drops in income and, in the case of indebted households, to continue paying debt service. In order to assess the sector's capacity to handle adverse shocks, the heterogeneity of their holdings is also important, especially the share of 'liquidity-poor' households, namely those that do not have sufficient liquid or highly liquid resources to keep, in the absence of any other revenue, their essential consumption needs above the poverty threshold for at least three months.[2] Data from supervisory reports on bank and postal deposits[3] by size bracket can provide indications as to how the growth in liquidity recorded during the pandemic has been distributed among households.

In 2020, the average amount of deposits of up to €12,500 increased by 7.1 per cent, a figure that had decreased in the period between 2013 and 2019. According to some hypotheses on the distribution of accounts among households,[4] last year's growth in savings held in bank and postal deposits also extended to some of the households that, before the public health emergency, held low amounts of liquidity. The consumption of these households seems to have fallen more than their income did, probably because they were unable to make certain purchases while non-essential businesses were closed and, anticipating that their income could fall further, for precautionary reasons.

According to the data from the Special Surveys of Italian Households carried out between April and December last year, the share of liquidity-poor households averaged 44 per cent.[5]

Figure

Probability of Italian households being 'liquidity-poor' (1)
(percentage points)



Source: Based on data from the Special Survey of Italian Households (ISF).
(1) The figure shows the marginal effects relative to the probability of a household not having sufficient financial liquidity (in the absence of any other revenue) to meet its consumption needs for at least 3 months, and, if it is in debt, to pay its instalments. The estimates are obtained by a non-linear regression through a probit model, conditional on the values taken by other explanatory variables besides those included in the figure. The additional regressors are: the survey respondent's age, sex, level of education, employment situation, macro-area of residence, the population size of the municipality of residence, and the fixed effects for the month of the interview. Data from the ISFs carried out in April and December of 2020. – (2) Probability difference with respect to a debt-free household. – (3) Probability difference with respect to a respondent that has a permanent full-time employment contract. – (4) Probability difference with respect to a household that expects its income in 2021 to be stable or to increase. – (5) Probability difference with respect to a household that has no difficulty in repaying its debts.

1 By David Loschiavo.

2 According to the European Commission definition, the poverty threshold is equal to 60 per cent of the median equivalent disposable income. This sum is divided by four to obtain the poverty line at three months. On the possible definitions of financial poverty, see A. Brandolini, S. Magri and T.M. Smeeding, 'Asset-based measurement of poverty', *Journal of Policy Analysis and Management*, 29, 2, 2010, 267-284, also published in Banca d'Italia, Temi di Discussione (Working Papers), 755, 2010.

3 Bank and postal deposits include current accounts, sight and overnight deposits, savings accounts (fixed-term or redeemable at notice), certificates of deposit and post office savings certificates, books and bonds. Reporting intermediaries classify deposits according to the amount held overall by each customer in one of five categories: up to €12,500; between €12,500 and €50,000; between €50,000 and €250,000; between €250,000 and €500,000; over €500,000.

4 These hypotheses, based on data from the Survey on Household Income and Wealth, are necessary because the number of accounts is greater than the number of households. After calculating the at-risk-of-poverty threshold that, according to the composition of a household by age and number of members, is between €3,300 and €6,700, the hypotheses allow the number of liquidity-poor households to be estimated.

5 This figure refers to individuals who, in the three editions of the Special Survey of Italian Households conducted in 2020 (on an overall sample of more than 4,500 respondents), declared they had sufficient financial resources for less than three months to cover essential household expenses (in the absence of any other revenue) and in the case of indebted households, to pay their loan instalments.

The probability of being in this situation was significantly higher for indebted households and, among these, for households expecting a reduction of more than 25 per cent in their income in 2021 (see the figure).

Almost half of indebted and liquidity-poor households reported difficulties in meeting their financial obligations; this suggests that, despite the increase in savings observed in 2020, the risk of illiquidity could translate into debt repayment difficulties for some indebted households.

Firms

The effects of the pandemic crisis on the balance sheets and financial position of Italian firms have been wide-ranging but uneven across sectors, even if contained by the support measures and favourable credit access conditions. The risks of an increase in vulnerability for firms remain high and are linked to the possible imbalances in their financial structure and to reductions in profitability if the health emergency endures. The consequences for financial stability can be mitigated by monetary and fiscal policy, including via the use of the European funds available under the Next Generation EU programme. In the current situation, removing the support measures too soon is to be avoided, as doing so could also affect firms that have a good possibility of surviving the crisis; in the future, these measures should be applied more selectively.[8]

In 2020, the fall in gross operating income by 7.2 per cent was smaller than that observed in 2009 following the global financial crisis. An improvement is expected for this year, although this will still not be enough to compensate for the decline in economic activity. The expectations of firms in the main euro-area countries[9] point to a decline in revenues in the six months ending in March 2021, even if to a lesser extent than in the preceding six months. In Italy, the reduction is limited to micro-firms (Figure 1.11.a).

The recovery in revenues for the largest Italian companies is confirmed by analysts' forecasts for listed companies' profits, which for 2021 indicate a slight increase on last year (Figure 1.11.b). In the construction and trade sectors the signs of improvement are more evident, while in the service sector, hit harder by the prevention measures, there is a marked downward revision. Nevertheless, uncertainty about the timing and the depth of the recovery is weighing on the medium-term outlook.

In 2020, leverage (calculated as the ratio of financial debt to the sum of financial debt and net equity) rose by about 2 percentage points, reaching 41 per cent (Figure 1.12.a); the increase (about 4 percentage points) is less than that seen in the last decade's financial crisis. It was determined by the fall in capitalization following the drop in share prices as well as by the rise in corporate debt.

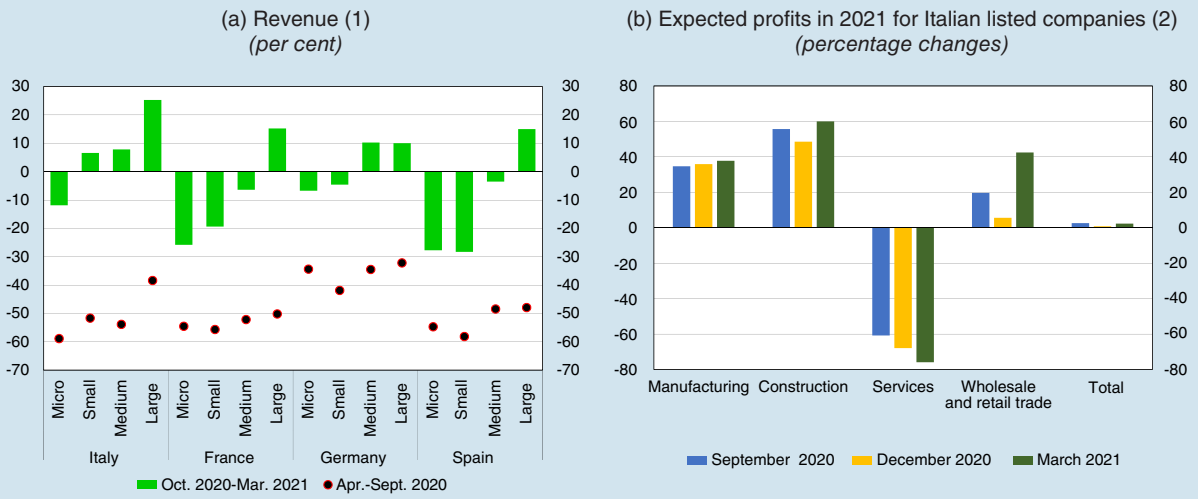
The adverse effects of the expansion in financial leverage were partly mitigated by the composition of the debt by maturity and by the increase in liquidity reserves. Partly as a result of the State-backed guarantee schemes, the ratio of short-term to total financial debt, equal to 19 per cent, did in fact reach a historical low, thus mitigating the risk connected with the renewal of maturing loans

8 'Hearing on matters relating to imbalances in the financial structure of Italian firms that risk being determined by the COVID-19 pandemic', testimony by the Head of the Financial Stability Directorate of the Bank of Italy, A. De Vincenzo, before the Sixth Standing Committee (Finance), Chamber of Deputies, Rome, 18 March 2021 (only in Italian).

9 The ECB conducts its Survey on the access to finance of enterprises (SAFE) twice a year. The latest survey, carried out in September and October 2020, includes the opinions of firms concerning the period April-September 2020 and their expectations for the period October 2020-March 2021. For further details, see ECB, 'Survey on the access to finance of enterprises in the euro area: small businesses report strong declines in turnover and profits but improved access to finance', press release, 24 November 2020.

Figure 1.11

Revenue and profit expectations

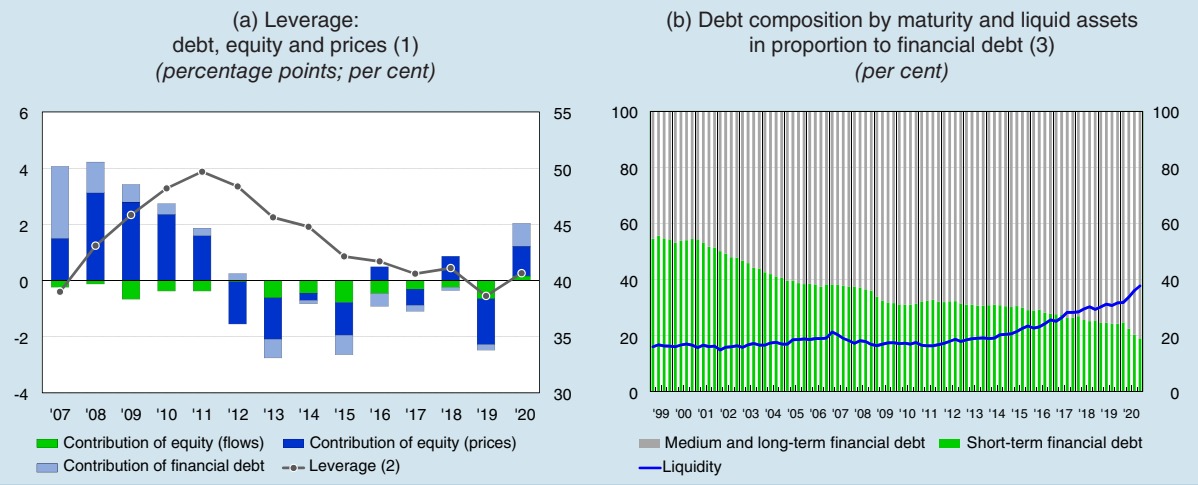


Sources: SAFE and Bloomberg.
(1) Firms' opinions on expected revenues (in the period October 2020-March 2021) and actual revenues (in the period April-September 2020). The values displayed represent the balance between firms that report, respectively, an increase or a decrease in revenue. Data for a representative sample of more than 11,000 European firms, stratified by size class (on the basis of the number of workers: 1-9 for micro-firms, 10-49 for small firms, 50-249 for medium-sized firms, and more than 249 for large firms) and by economic sector, included in the SAFE survey. – (2) Changes in the profit index expected by analysts for 2021 compared with 2020. The total also includes the energy and public utilities sectors. Based on a closed sample, as at March 2020, of 133 listed companies accounting for 95 per cent of the market capitalization of non-financial corporations.

(Figure 1.12.b). Liquid assets, mainly represented by firms' bank deposits, increased by 6 percentage points in relation to their financial debt, reaching about 38 per cent. The postponement of investment plans and the greater propensity to hold liquidity in the face of economic uncertainty have led to the accumulation of significant cash reserves, which could limit the consequences of any future tightening of lending criteria.

Figure 1.12

The financial structure of firms



(1) The histograms break down the annual change of leverage in the contribution of 3 factors: financial debt, net flows of shares and participating interests, and changes in the market value of equity. Preliminary data for 2020. – (2) Right-hand scale. – (3) Proportion of short-term debt (maturity within a year), medium- to long-term debt (maturity above one year) and liquid assets to total financial debt. Preliminary data for 2020.

Net of liquidity, the leverage for the corporate sector was practically unchanged from the level observed prior to the pandemic.

The aggregate data do not, however, allow us to evaluate the implications of the vastly different financial positions of firms operating in the various economic sectors, which translates into a significant increase in the number of firms in the highest risk category (see the box 'The effects of the pandemic on the balance sheets and riskiness of firms in the various economic sectors').

THE EFFECTS OF THE PANDEMIC ON THE BALANCE SHEETS AND RISKINESS OF FIRMS IN THE VARIOUS ECONOMIC SECTORS[1]

The availability of accounting data referring to 2019 for about 730,000 non-financial limited companies, together with sectoral data on changes in turnover and credit at individual firm level covering the whole year 2020, made it possible to update the estimates released last year concerning the impact of the pandemic on the balance sheets and riskiness of firms.[2] It is therefore possible to take into account both the further reduction in economic activity that occurred in the final months of last year and the provisions included in the 'Relief decrees.[3]

The estimates indicate that the pandemic crisis had a significant impact on the income statements of the firms that were active at the end of 2020. Following a drop in overall revenue of 11 per cent, operating profitability, measured as the ratio of gross operating income to total assets, fell by 2 percentage points, to 5 per cent; net profit nevertheless remained positive. The impact of the crisis across economic sectors is markedly uneven: in the sectors less affected[4] (agriculture, transport and logistics; see panel (a) of the figure), the overall resilience of turnover raised profitability slightly; in the sectors hit relatively harder by the measures introduced to contain COVID-19 infection (accommodation and food services, and entertainment), the sharp drop in turnover (-40 per cent) led to a negative gross operating income and a considerable fall in profitability.

1 By Antonio De Socio, Simone Narizzano and Tommaso Orlando.

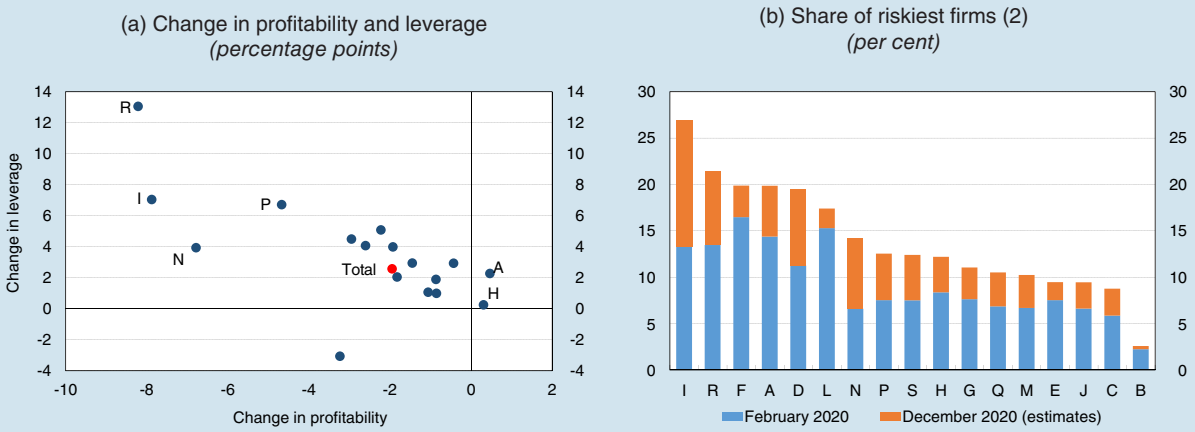
2 The new estimates update the findings included in A. De Socio, S. Narizzano, T. Orlando, F. Parlapiano, G. Rodano, E. Sette and G. Viggiano, 'The effects of the COVID-19 shock on corporates' liquidity needs, balance sheets and riskiness needs, balance sheets and riskiness', *Note Covid-19*, Banca d'Italia, 13 November 2020; see also the boxes 'Firms' liquidity needs', *Financial Stability Report*, 1, 2020, and 'The effects of the pandemic on banks' exposure to credit risk', *Financial Stability Report*, 2, 2020. The changes in turnover are calculated monthly at sectoral level (two-digit ATECO classification); those for credit are based on the Central Credit Register. The main balance sheet items considered are turnover, operating profitability, net profit, total assets, and financial debt. This excludes, among other things, investment, changes in working capital, and dividend distribution. Moreover, the estimate takes into account the exit of firms from the market over the course of 2020: this led to the exclusion of about 11,000 firms which, despite having released the annual accounts for 2019, appear to have subsequently ceased operations. The exit from the market of limited companies was identified with the start of administrative liquidation proceedings or with the entering of a 'formal exit' notice in the companies register (e.g. because the company was dissolved or underwent voluntary liquidation). These were mainly vulnerable micro-firms that even before the pandemic were experiencing economic and financial difficulties: 63 per cent of them reported a loss at the end of the financial year, and 37 per cent recorded net equity below the regulatory thresholds.

3 The measures introduced by Decree Laws 137/2020, 149/2020, 154/2020 and 157/2020 ('Relief' decrees) are in addition to the measures already taken by the Government to support liquidity and access to credit (wage supplementation, debt moratoriums for SMEs, tax payment deferrals, grants, and rent support).

4 Differing trends were observed in this segment: logistics and freight transport recorded an increase in turnover in 2020, while passenger transport was strongly affected by the restrictions on mobility.

Figure

Sectoral effects of the pandemic on firms' balance sheets and credit risk category at end-2020 (1)



(1) The economic sectors are classified according to ATECO 2007 codes (A: Agriculture, forestry and fishing; B: Mining and quarrying; C: Manufacturing; D: Energy and gas supply; E: Water supply, sewerage; F: Construction; G: Wholesale and retail trade; H: Transportation and storage; I: Accommodation and food service activities; J: Information and communication; L: Real-estate activities; M: Professional, scientific and technical activities; N: Rental, travel agencies and services for firms; P: Education; Q: Health and social work; R: Artistic, sporting and entertainment activities; S: Other service activities). – (2) Share of firms with a probability of default that is higher than 5 per cent compared with the sector total.

A significant effect is observed on firms' financial structure, owing to rising debt, in part necessary to meet the liquidity needs stemming from the fall in economic activity.[5] There is a negative sectoral correlation of leverage (calculated as the ratio of financial debt to the sum of financial debt and net equity at book value) with the trends in profitability; in particular, the greatest increases in leverage were recorded in the two hardest hit segments.

Moreover, the impact of the recession has increased the riskiness of the firms still active at the end of 2020. According to the Bank of Italy's In-house Credit Assessment System (ICAS), available for a subset of about 240,000 firms, the one-year probability of default was 3.7 per cent at end-2020, up by 0.7 percentage points compared with February 2020. The rise is more pronounced in the accommodation and food services sector and in the entertainment sector (1.9 and 1.4 percentage points respectively, to 5.5 and 5.3 per cent).

The worsening of economic and financial conditions brought about by the pandemic was reflected in a significant rise in the share of the highest-risk firms (with a probability of default above 5 per cent), which went from 10 to 14 per cent; some of these firms might have difficulty continuing their activity in the coming years. The increase was especially pronounced in the two hardest hit sectors, in which the share of these firms was already relatively high before the pandemic, in addition to the segment comprising rental, travel agencies and services for firms[6] and that relating to the provision of energy and gas (see panel (b) of the figure).

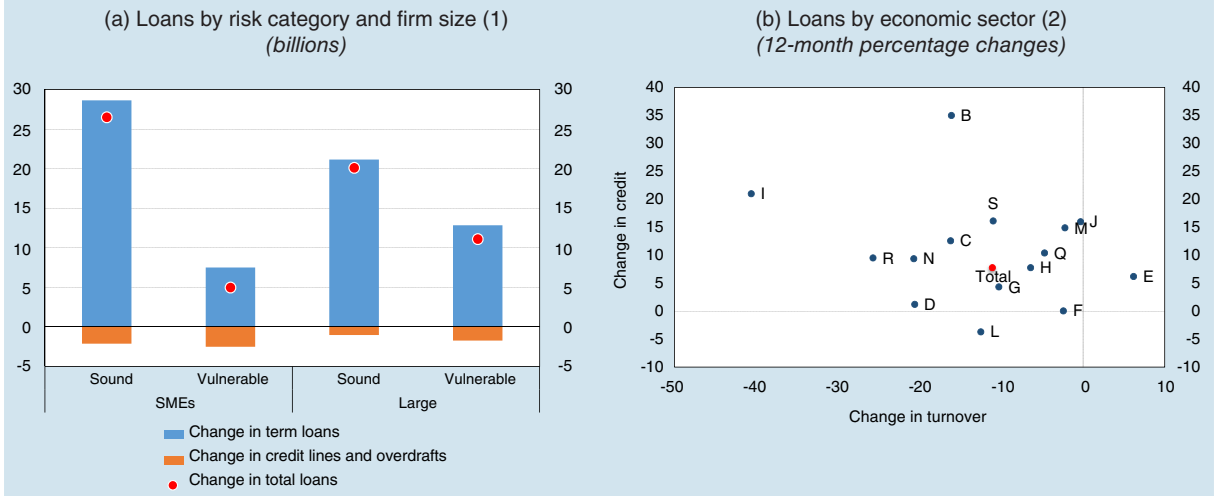
5 The change in debt was equal to that observed in the Central Credit Register. For the firms that did not have a liquidity shortfall, an increase in loans produces an equivalent increase in cash flow. For the firms that did have a liquidity shortfall, also considering the impact of the support measures and the rise in borrowing highlighted by the Central Credit Register, debt is further increased by the amount necessary to meet such a shortfall.

6 The segment comprising rental, travel agencies and services for firms is primarily penalized by the travel agencies component, for which the probability of default rose by about 4 percentage points.

The growth in lending to non-financial corporations has remained robust thanks both to the demand for liquidity connected with the public health emergency and to the accumulation of savings for precautionary reasons (see the box 'Lending to firms in Italy and in the main euro-area countries during the pandemic'). The analysis of financing granted to companies between March and December 2020 show that the loans – in particular those to SMEs – were provided mainly to those with the soundest financial conditions. Overall, the share granted to vulnerable firms is small and accounts for about one fourth of total funding (Figure 1.13.a).

Figure 1.13

Credit to firms



Sources: Central Credit Register, Cerved and the Department of Finance.
(1) Changes in credit granted in the period March-December 2020. Vulnerable firms are those whose gross operating income at end-2020 was negative or whose ratio of interest expense to gross operating income exceeded 50 per cent (see Footnote 12). Excludes firms with bad loans. Calculations based on a sample of about 400,000 companies. – (2) The rate of change in turnover refers to change in the VAT tax base measured through electronic invoicing in the period January-December 2020. The rate of change in credit is calculated on a sample of about 450,000 companies. Loans include those granted by financial corporations, taking account of securitizations and also include bad loans. The economic sectors are classified according to ATECO 2007 codes (A: Agriculture, forestry and fishing; B: Mining and quarrying; C: Manufacturing; D: Energy and gas supply; E: Water supply, sewerage; F: Construction; G: Wholesale and retail trade; H: Transportation and storage; I: Accommodation and food service activities; J: Information and communication; L: Real estate activities; M: Professional, scientific and technical activities; N: Rental, travel agencies and services for firms; P: Education; Q: Health and social work; R: Artistic, sporting and entertainment activities; S: Other service activities).

The asymmetric nature of the effects of the pandemic across economic sectors and firms is also reflected in credit trends. The increase in lending was marked for companies belonging to sectors where the fall in turnover was greatest (accommodation and food services, entertainment, energy and gas, and rental and travel services; Figure 1.13.b); the share of funding to the sectors worst hit by the crisis in relation to total lending in 2020 is nevertheless modest (13 per cent).

Banks' lending criteria remained relaxed: starting in March last year, the interest rate applied to new loans fell by about 90 basis points, and the average loan duration increased. According to the banks, the easing of their lending criteria mainly concerned guaranteed loans and this trend appears to have continued in the early months of this year.[10] The first signs of a worsening in credit quality have been recorded. In the fourth quarter of 2020, a slight increase in the non-performing loan rate was observed, above all in the sectors hardest hit by the restrictive measures; this trend continued in the early months of this year as well (see Section 2.2).

[10] See ECB, 'January 2021 euro area bank lending survey', press release, 19 January 2021.

The improvement of the situation on the domestic financial markets helped the recovery of initial public offerings, the number of which was nevertheless significantly below the average for the last three years. Most issuers have chosen the Alternative Investment Market (AIM), which is reserved for SMEs. Recent studies indicate that a wide range of SMEs have suitable characteristics for listing on the AIM.[11]

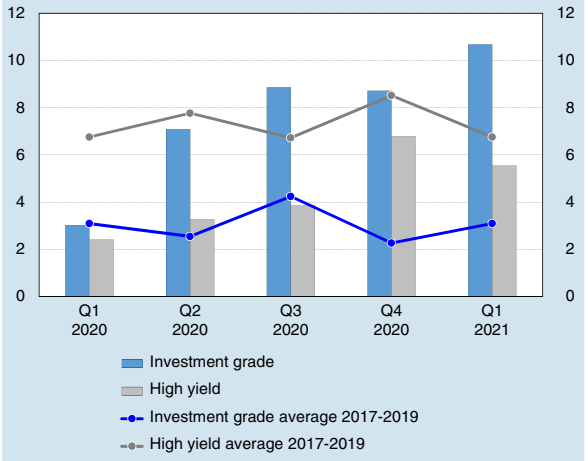
Recourse to bond funding picked up again substantially starting in the second quarter of last year. Gross placements reached €47 billion in 2020, an amount close to that recorded in 2019. The volume of issues by the most financially sound firms exceeded the average for the last three years; whereas the volume of issues placed by companies in the highest risk category declined (Figure 1.14).

The liquidity support measures and the moratorium on bankruptcies (in force from the beginning of March to the end of June 2020) limited the number of firms exiting the market. It is expected that this year there will be more businesses in crisis than in 2019, because of the lagged effects of the pandemic on the detection of insolvencies.[12]

The degree of vulnerability of firms will mainly depend on how the economy is performing: the projections of the Bank of Italy's microsimulation model indicate that, in a baseline scenario consistent with a recovery in the second half of 2021 incorporated in the latest macroeconomic forecasts, the share of debt held by vulnerable firms would decrease to 27 per cent at the end of the year (Figure 1.15);

Figure 1.14

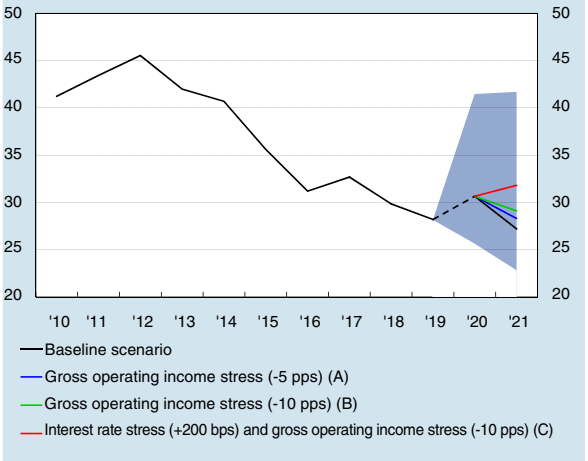
Bond issues by firms' credit risk category (1)
(billions)



Sources: The securities database, Dealogic and Cerved.
(1) Gross amount of bonds issued by Italian non-financial firms and groups. The investment grade risk category comprises issuers with Cebi Score ratings from 1 to 4, while the high yield category comprises issuers with ratings above 4. Bond issues with no available risk category rating are not included; their share of total issues is, however, limited (4 per cent in the period 2017-21).

Figure 1.15

Share of debt held by vulnerable firms (1)
(annual data; per cent)



Source: Based on Cerved data.
(1) Vulnerable firms are those whose gross operating income is negative or whose ratio of net interest expense to gross operating income exceeds 50 per cent. The definition excludes firms with bad loans. The latest available annual financial statements for the whole sample of firms refer to 2019. The shaded area indicates a confidence interval of 95 per cent around the baseline scenario. Compared with the baseline scenario, the assumptions for 2021 are that: (A) the growth rate of nominal gross operating income is 5 percentage points lower; (B) the growth rate of nominal gross operating income is 10 percentage points lower; (C) the interest rate is 200 basis points higher and the growth rate of nominal gross operating income is 10 percentage points lower.

[11] G. Buscemi, S. Narizzano, F. Savino and G. Viggiano, 'The impact of the COVID-19 pandemic crisis on Italian SMEs access to capital markets', *Note Covid-19*, Banca d'Italia, 12 January 2021.

[12] S. Giacomelli, S. Mocetti and G. Rodano, 'Fallimenti d'impresa in epoca Covid', Banca d'Italia, *Note Covid-19*, 27 January 2021 (only in Italian).

fragility is expected to remain highest in the construction sector.[13] If trends in profitability were to prove more unfavourable than projected in the baseline scenario, the share of debt at risk would rise to 28 per cent of the total.[14] In a particularly adverse scenario, characterized by very negative changes in profitability and in the cost of debt, and in the absence of further support measures, the share would reach 32 per cent, a level nevertheless far below that recorded during previous crises (2008-09 and 2011-12).

[13] For details on the microsimulation model, see A. De Socio and V. Michelangeli, 'A model to assess the financial vulnerability of Italian firms', *Journal of Policy Modeling*, 39, 2017, 147-168, also published as 'Modelling Italian firms' financial vulnerability', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 293, 2015.

[14] Compared with the baseline scenario, the adverse scenario assumes a reduction in the growth rate of nominal gross operating income of 5 percentage points, or about one standard deviation around the yearly variations recorded in the period 2003-2020.

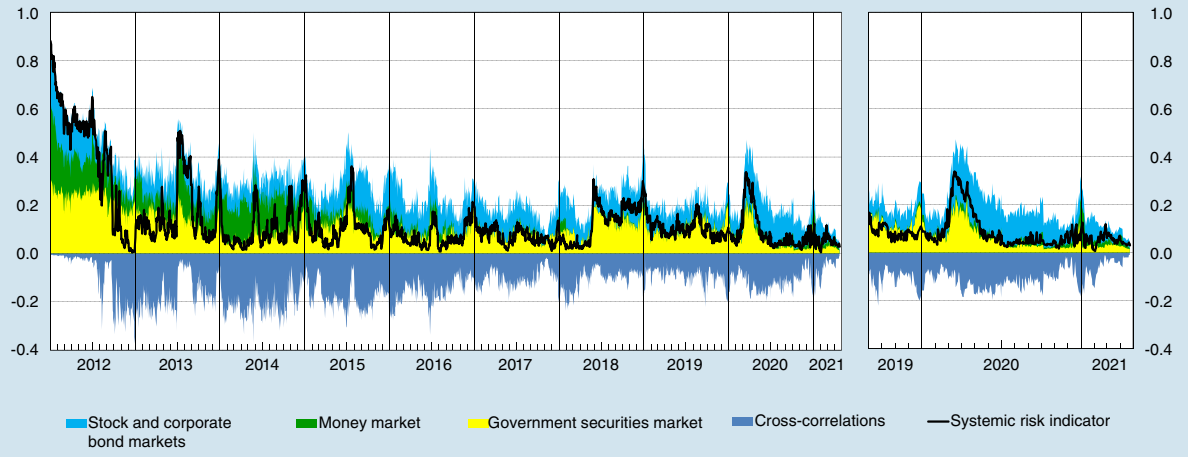
2 FINANCIAL SYSTEM RISKS

2.1 THE MONEY AND FINANCIAL MARKETS

Liquidity conditions on Italy's financial markets have remained relaxed, favoured by the Eurosystem's public and private sector securities purchase programmes. The indicator of systemic liquidity risk has returned to pre-pandemic levels (Figure 2.1). However, the possibility of sudden spikes in volatility, including at global level (see Section 1.1), may represent a risk factor for the liquidity of the Italian financial market.

Figure 2.1

Indicator of systemic liquidity risk in the Italian financial markets (1)
(daily data; index ranges from 0 to 1)



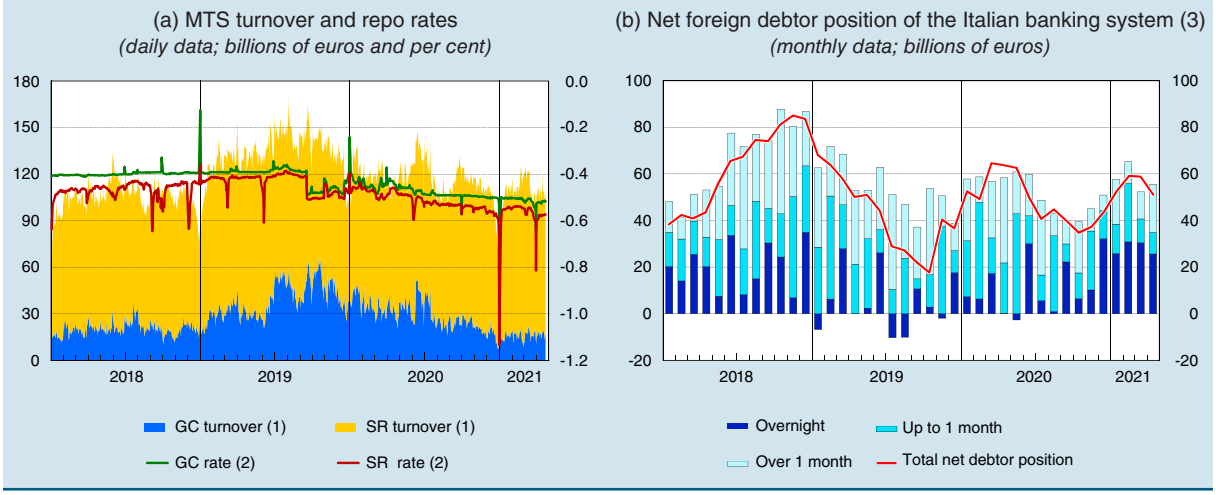
Sources: Based on data from Refinitiv, Bloomberg, Moody's KMV, MTS SpA, e-MID SIM SpA, and the Bank of Italy.
(1) The systemic risk indicator measures the combined risk in the money market, the secondary market for government securities, and the stock and corporate bond markets. The index range is from 0 (minimum risk) to 1 (maximum risk). The graph also shows the contributions to the systemic risk indicator of the individual markets and the correlations between them. For the methodology used in constructing the indicator, see *Financial Stability Report*, 1, 2014.

Activity in the general collateral segment of the money market has gradually diminished since last summer (Figure 2.2.a), reflecting the abundant liquidity in circulation and the lesser need for bank funding; during the same period, trading on the special repo segment has risen, in part owing to robust activity on the secondary market for government securities. Yields have stayed close to the deposit facility rate. The net foreign debtor position of the Italian banks on the MTS repo market progressively rose and then came to a standstill in March (Figure 2.2.b), even accounting for the liquidity received with the seventh auction in the third series of targeted longer-term refinancing operations (TLTRO III; see Section 2.2). The average cost of securities lending transactions (*specialness*), which measures the scarcity of single issues, remained modest, also thanks to the contributions of the securities lending programmes conducted by the Bank of Italy to encourage market liquidity.

At international level, preparations for the transition from the current money market benchmark rates to the new risk-free interest rates continue in accordance with the roadmap established by the Financial

Figure 2.2

Repo turnover, rates and net debtor position on the MTS market



Source: Based on MTS SpA data.
(1) Daily turnover in general collateral (GC) and special repos (SR) on the MTS market by contract settlement date. – (2) Calculated in reference to daily contracts for Italian government securities made on MTS Repo. Right-hand scale. – (3) Calculated on the basis of the cash value of the outstanding contracts on the MTS repo market. Monthly averages of daily data for total net position; for the breakdown by maturity, end-of-period data.

Stability Board (FSB).[1] It was recently announced that the LIBOR rates for the major international currencies and the Eonia rate for the euro area will no longer be published as of the end of 2021.[2] The lack of fall-back provisions in some existing contracts and the still-limited development of derivatives markets around the new risk-free rates constitute the primary vulnerabilities for the financial system during the transition. The new powers envisaged by the revision of the European legislation on financial benchmarks could help to contain those vulnerabilities.[3]

In the first few months of 2021, liquidity conditions in the secondary market for government securities improved further beyond the already favourable levels observed in the final months of last year. The quantities quoted by market makers on the MTS market reached historic highs and the bid/ask spread was particularly small (just over 10 basis points on average; Figure 2.3.a). The market's ability to absorb large orders with no significant effect on prices has been good, despite a slight increase in intraday volatility (Figure 2.3.b).

Trading volumes have increased significantly over the last year, reaching, in February, an average daily turnover of almost €15 billion, four times greater than the same figure for 2019. The considerable placement activity on the primary market and the Eurosystem's increasing purchases motivated specialists in government securities (primary dealers) to increase their activity on the secondary market. The share of trading conducted on the electronic markets rose.

1 FSB, 'Global transition roadmap for LIBOR', October 2020.

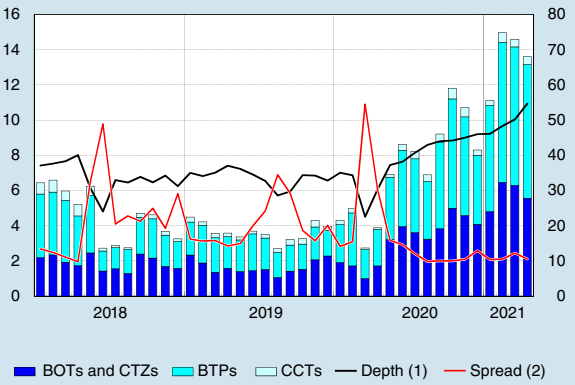
2 It was announced on 5 March that the LIBOR settings for the Japanese yen, sterling, euro and Swiss franc will officially cease on 31 December 2021. The dollar settings for the more liquid maturities (i.e. overnight, 1-, 3-, 6, and 12-month) have been extended to June 2023, while the remaining maturities will cease as of the end of 2021 (see Financial Conduct Authority, 'FCA announcement on future cessation and loss of representativeness of the LIBOR benchmarks', press release, 5 March 2021). In the euro area, the European Money Market Institute (EMMI) confirmed the cessation of the Eonia at the end of 2021 (see EMMI, 'Public Statement. Planned cessation of Eonia® on 3 January 2022', 12 February 2021).

3 The European Commission can designate a statutory replacement rate to be used if existing contracts do not include a suitable replacement rate. On 23 March 2021, the Commission launched a public consultation on whether such a rate should be adopted for the Swiss franc LIBOR, which is also being phased out.

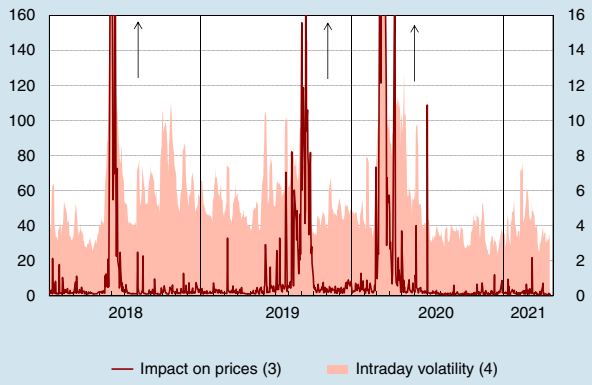
Figure 2.3

Liquidity indicators on Italian government securities

(a) Trading volumes, depth and bid-ask spread on MTS
(monthly averages of daily data; billions of euros and basis points)



(b) Impact of large orders on the prices quoted on MTS and intraday volatility
(daily averages of high-frequency data; basis points and percentage points)

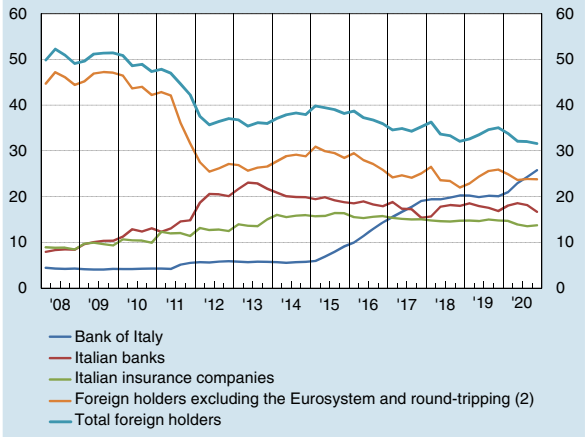


Source: Based on MTS data.
(1) Calculated as the average of the bid and ask quantities recorded during the entire trading day on BTPs listed on MTS. – (2) Measured as the simple average of the bid-ask spreads observed during the entire trading day for the BTPs listed on MTS. Right-hand scale. – (3) The analysis refers to the 10-year benchmark BTP and is based on data recorded at 5-minute intervals. Average daily impact on bid-ask prices listed on MTS of a sale or purchase order of €50 million. – (4) A measure of volatility (realized volatility) based on intraday yields of 10-year BTPs calculated at 5-minute intervals; 5-day moving average of annualized values. Right-hand scale.

In the second half of 2020, the amount of Italian government securities held by banks headquartered in Italy fell by around 2 percentage points, to 16.7 per cent, while that of insurance companies held stable at 13.7 per cent. During the same period, the percentage held by foreign investors remained unchanged at 23.8 per cent, while that of the Bank of Italy rose to 25.8 per cent (Figure 2.4); according to our estimates, the purchase of public sector securities by non-residents has increased since the start of the year. The investments are in large part connected to the asset management industry which, after the selling that occurred during the periods of market stress last year (see the box 'The investment choices of institutional investors after the start of the pandemic', in *Financial Stability Report*, 2, 2020), once again began to purchase securities.

Figure 2.4

Italian government securities by holder category (1)
(quarterly data; billions of euros and per cent)



Sources: Bank of Italy, Financial Accounts, and estimates based on Assogestioni and ECB data.
(1) Shares calculated on data at market prices and net of securities held by Italian general government. Data refer to a subset of holders. – (2) Securities held by foreign investors net of those held by the Eurosystem (excluding the Bank of Italy) and by foreign investment and mutual funds attributable to Italian investors.

On the primary market for government securities, issuance continued at a steady pace: in the early months of 2021, considerable volumes were put up for auction and new benchmark securities with longer maturities, for which demand was high, were issued through syndicates. In the six months ending March 2021, the bid-to-cover ratio in auctions stayed on average at levels close to those recorded in the previous six months. At the start of March, the first

Italian 'green' government bonds (BTP green) were issued, the funds raised through which are earmarked to finance the cost of the ecological transition of Italy (see the box 'The first BTP Green issue').

THE FIRST BTP GREEN ISSUE [1]

At the start of March, Italy issued its first green bond (BTP Green), the proceeds of which are earmarked for financing the cost of the ecological transition in order to achieve climate neutrality by 2050 and to meet the European Green Deal targets. The Italian issue was preceded by the publication of the 'Framework for the Issuance of Sovereign Green Bonds', the document that sets out the plan for the 'green' transformation of strategic areas of the Italian economy.[2]

With this inaugural placement, the Italian Treasury entered the green bond market, which has grown rapidly in recent years – especially after the signing of the Paris Agreement on climate change in 2015 – and now totals more than €800 billion at global level.[3] In the asset management sector the value of the global funds dedicated to green bonds rose by 30 per cent to €14 billion in the first six months of last year, divided among 63 funds (42 of which launched since 2017).[4]

Over the years, the presence of sovereign issuers in this market has increased, including their involvement in setting standardized practices for the issue of these instruments by international institutions and authorities.[5] Sovereign green bonds differ from conventional government bonds only in that the funds raised are earmarked for a specific purpose, being directed towards sectors that require substantial investment and that have a positive impact on the environment. The proceeds from the issuing of the green bond will be used to carry out projects for climate change mitigation and adaptation, the sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.[6]

At global level, the six most important sovereign green bond issuers are members of the euro area.[7] Of these, France was the first to enter the segment, issuing about €29 billion in green *obligations assimilables du Trésor* (OAT) since 2017, which mature in 2039, and launching a new long-term bond for €7 billion in 2021 (Figure A). Germany entered the arena more recently, putting 5- and 10-year green Bunds into circulation for a total of €12 billion; the model used provides that each green bond will have the same characteristics as an existing conventional security – called its 'twin' – and that the issuer can switch green Bunds for their twins and vice versa.[8]

1 By Stefano Antonelli and Vittorio Siracusa.

2 The 'Framework for the Issuance of Sovereign Green Bonds' is aligned with the Green Bond Principles issued by the International Capital Market Association (ICMA); in addition, on the European Union's website, see 'EU Green Bond Standards' for the latest draft of the standards. All these principles, currently being discussed at EU level, establish the best practices for the issuance of green bonds in the EU.

3 For further details on sovereign green bonds, see R. Doronzo, V. Siracusa and S. Antonelli, 'Green bonds: the sovereign issuers' perspective', Banca d'Italia, Markets, Infrastructures, Payment Systems series, 3, 2021.

4 Fitch Ratings, 'Global green bond fund dashboard: 1H20', 2020.

5 More specifically, the European Commission has prepared a taxonomy of sustainable activities to define the financial instruments and practices best suited to achieving the objectives set out in the Paris Agreement. In parallel with this, work has begun on defining the EU Green Bond Standard.

6 For more information, see the website of the Ministry of Economy and Finance: BTP Green.

7 Some of the largest issuers of government bonds, such as the United States and Japan, have not yet entered the green bond segment.

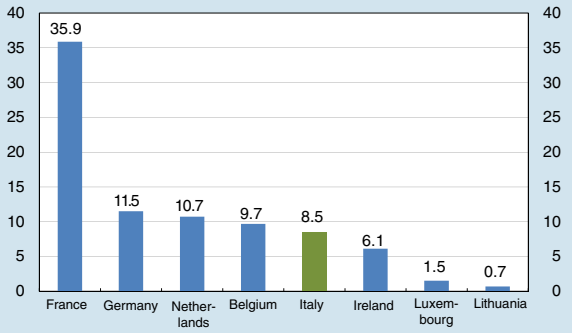
8 This approach aims to improve the green bond's liquidity and make it possible to assess its performance linked to the green component. The German Federal Government indicated that it intends to use this system to place other green Bunds with maturities ranging from 2 to 30 years in order to construct a green yield curve that will serve as a euro-area benchmark.

Italy's green bond, which matures in 2045, was favourably received by the market. The amount placed with the first tranche came to €8.5 billion, making Italy the fifth largest issuer of sovereign green bonds in the euro area and at global level. In contrast with the most recent placements of comparable BTPs, there was significant participation by long-term investors and market players that have adopted environmental, social and governance (ESG) criteria as part of their investment strategies. The presence of these investors – to whom more than half of the quantity issued was assigned – has led to an expansion in the investor base.

On the secondary market, in its first seven weeks of trading, the performance of the green bond was similar to that of conventional BTPs with an analogous maturity. However, adjusting for the different duration, the yield of the green bond was about 5 basis points lower than that of BTPs with near maturities (the so-called 'greenium';[9] see Figure B) and the bid-ask spread was small, similar to that of traditional securities, despite the lower amount in circulation. The outcome of the placement and the performance on the secondary market seem to confirm that an extensive investor base exists and that there is significant interest in the sovereign green bond segment. Generally speaking, the increasing adoption of ESG strategies by numerous market players and the rapid development of the green bonds segment confirm the growing interest on the part of investors for sustainable finance.

Figure A

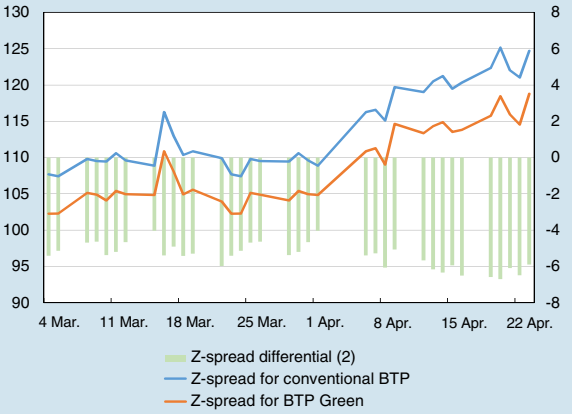
Volume of green bonds issued by euro-area sovereign issuers
(billions of euros)



Source: Based on Refinitiv data. Data at 23 April 2021.

Figure B

Yield on BTP Green and conventional bonds (Z-spread) (1)
(basis points)



Source: Based on Refinitiv data. The data refer to the period from 4 March through 23 April 2021.
(1) The Z-spread represents the credit spread that, when added to the risk-free interest rate on the zero-coupon curve, sets the current value of the cash flows of the bond equal to its market price. – (2) The differential between the Z-spread for the green bond and that resulting from the interpolation of the yields of the conventional BTPs whose maturity is closest to that of the green bond. Right-hand scale.

[9] The term 'greenium' refers to the spread between the yield on the green bond and that on the conventional bond with an analogous maturity.

In February, yields at issue reached an historic low in the intermediate part of the curve. The average cost of government securities outstanding, equal to 2.3 per cent at the end of March, continues to fall. During the same period, the average residual maturity of securities outstanding was around 7 years (Figure 2.5).

The Treasury's funding needs for this year continue to be high, even though Italy is set to receive European funds, specifically the loans available through the temporary Support to mitigate Unemployment Risks in an

Emergency (SURE) and the pre-financing envisaged under the Next Generation EU programme to relaunch the economy, which are expected to amount to almost €36 billion in 2021.[4] Total medium and long-term securities maturing amount to €218 billion in 2021, €219 billion in 2022, and €245 billion in 2023 (Figure 2.6). Buybacks and exchanges have been carried out (€8 billion in 2020) to reduce expected repayments in 2023.

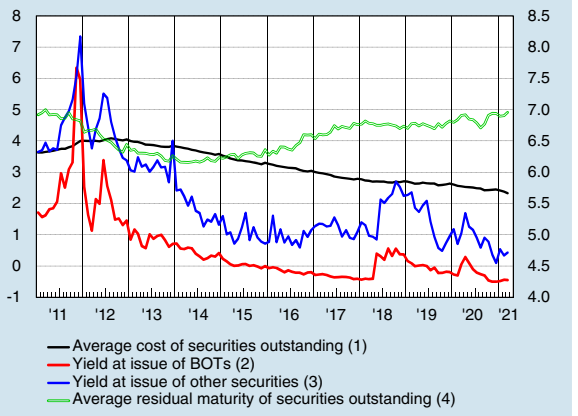
In the market for options on Italian government securities, the cost required to insure against price variations, measured by implied volatility, reached very low levels, although there have been some signs of tension coinciding with the sharp rise in yields on US securities; the spread with respect to the German Bund narrowed further (Figure 2.7.a). The difference between the relative price of options that protect against a fall in the value of the futures on ten-year BTPs compared with the price of those that profit from a rise in it (as measured by the risk reversal index), indicates that expectations of a reduction and those of an increase in Italian bond prices are broadly balanced (Figure 2.7.b).

Since the end of November, the insolvency risk premium on Italian government securities recorded in the market for credit default swaps (CDS) has continued to decline, falling to below pre-pandemic levels (Figure 2.8.a). The difference between the premium on CDS contracts that offer protection against the risk of debt redenomination and that on contracts with no such provision (ISDA basis) remained basically unchanged (Figure 2.8.b).

In the corporate sector bond market, the spread between the bonds issued by Italian firms and the risk-free rates, approximated by the interest rate swap curve (asset swap spread), has narrowed (Figure 2.9), only reflecting temporarily the tensions sparked by the rise in US rates. The spreads have fallen to close to pre-pandemic levels for both issuers with lower credit ratings (high yield) and for those rated higher (investment grade).

Figure 2.5

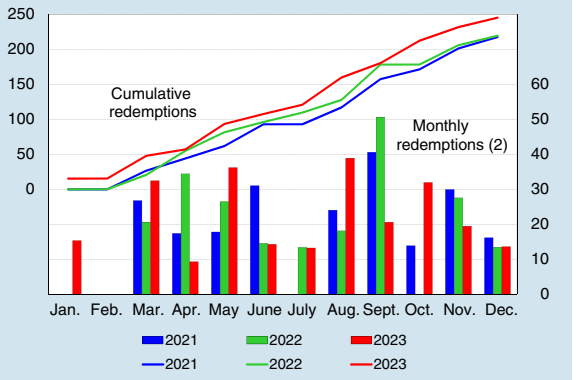
Average cost, yield at issue and average residual maturity of government securities
(monthly data; per cent and years)



Sources: Based on Ministry of Economy and Finance and Bank of Italy data. Data at 31 March 2021.
(1) Weighted average of the yields at issue of government securities outstanding at end of month. – (2) Weighted average of the yields at issue of all the BOTs placed during the month, by settlement date. – (3) Weighted average of the yields at issue of securities other than BOTs and indexed BTPs placed during the month, by settlement date. – (4) End-of-period values weighted by the outstanding securities. Right-hand scale.

Figure 2.6

Redemptions of medium and long-term government securities (1)
(monthly data; billions of euros)



Sources: Based on Ministry of Economy and Finance and Bank of Italy data. Data at 23 April 2021.
(1) Government securities (including those placed on international markets) with maturity at issue of more than one year. The redemptions of indexed BTPs are not revalued for inflation. – (2) Right-hand scale.

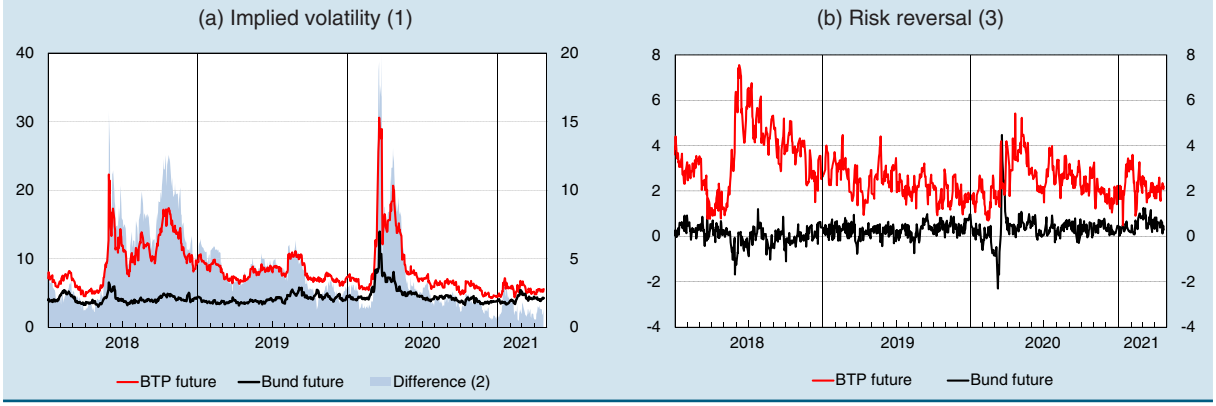
The number and size of the downgrades by ratings agencies, while still large overall, have declined significantly in recent months, both in Italy and in the rest of the euro area. From early November to the end of March,

[4] Specifically, it is expected that the residual loans under SURE will amount to €10.8 billion. As for the Next Generation EU programme, pre-financing of 13 per cent of the amount of the resources introduced by the National Recovery and Resilience Plan is envisaged for 2021.

5 per cent of the nominal value of Italian securities outstanding had their credit rating cut by one of the three main agencies (Moody's, Standard & Poor's and Fitch Ratings), compared with 8 per cent for the period between March and October 2020 (10 per cent for the other euro-area countries, compared with 17 per cent between March and October).[5]

Figure 2.7

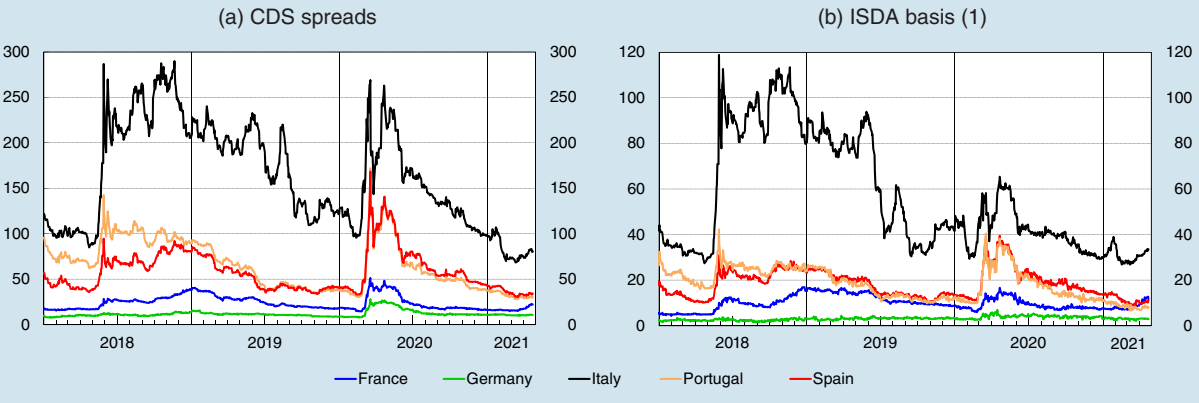
Futures on 10-year BTPs and Bunds, implied volatility and risk reversal
(daily data; percentage points)



Source: Based on Bloomberg data.
(1) Implied volatility in the prices of at-the-money options on 10-year BTP and Bund futures with maturity at 30 days. – (2) Right-hand scale. – (3) Difference between the implied volatility of put and call option prices on active 10-year BTP and Bund futures with the same relative change in the strike price in relation to the underlying price (moneyness) and with the same residual maturity (1 month).

Figure 2.8

Market for sovereign credit default swaps (CDS)
(daily data; basis points)



Source: Based on Bloomberg data.
(1) The International Swaps and Derivatives Association (ISDA) is an organization of participants in the market for over-the-counter (OTC) derivatives. The ISDA basis measures the difference between CDS spreads on 5-year US dollar contracts under the 2014 and the 2003 ISDA Definitions.

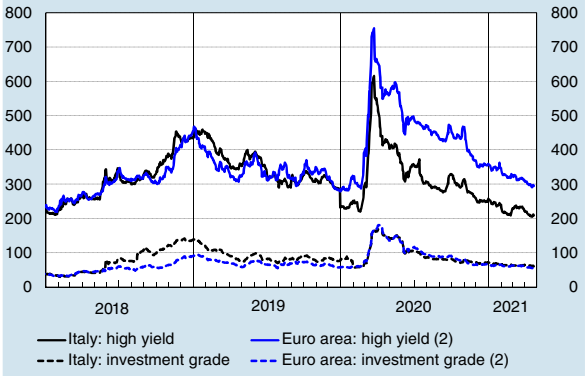
[5] This refers to the synthetic ratings assigned by ICE, calculated as the average of the ratings assigned by Moody's, Standard & Poor's and Fitch Ratings. The reference sample consists of 1,939 corporate bonds issued by 400 non-financial corporations in the euro area, for a total nominal amount of €1,330 billion. The bonds considered are those included in the ICE BofA euro corporate investment grade and ICE BofA euro corporate high yield indices, largely representative of total bond issues traded in the markets. The subset of Italian firms comprises 179 securities from 42 issuers, for a total nominal amount of €122 billion.

At the end of March the share of issues with a BBB- rating, the lowest investment grade, was around 15 per cent in Italy and in the euro area. There is still the risk that uncertainty about the economic outlook could lead to these bonds being downgraded to speculative grade, corresponding to a rating of BB+ or below, with possible negative effects on the cost of bond funding.

The implied volatility in the equity markets and the cost of protection against sharp falls in prices (risk reversal) reached near pre-pandemic levels in Italy and in the euro area (Figure 2.10).[6] After more than a year, the volatility spread between two- and twelve-month options turned negative again, pointing to less investor uncertainty regarding the shorter-term outlook (Figure 2.10.b). The episodes of high volatility that affected individual securities, especially in the US (see Section 1.1), did not spread significantly to the Italian market.

Figure 2.9

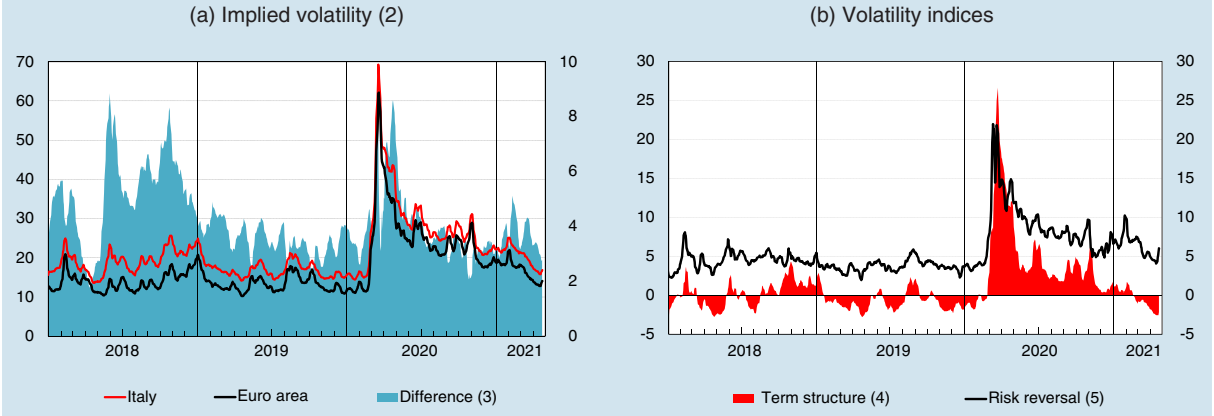
Asset swap spreads (1)
(daily data; basis points)



Source: Based on ICE Bank of America Merrill Lynch (BofAML) data.
(1) Asset swap spreads weighted by the market capitalization of individual securities issued by non-financial corporations. – (2) The ICE Bank of America Merrill Lynch indices for the euro area have been recalculated to exclude Italy.

Figure 2.10

Equity market indicators (1)
(daily data; percentage points)



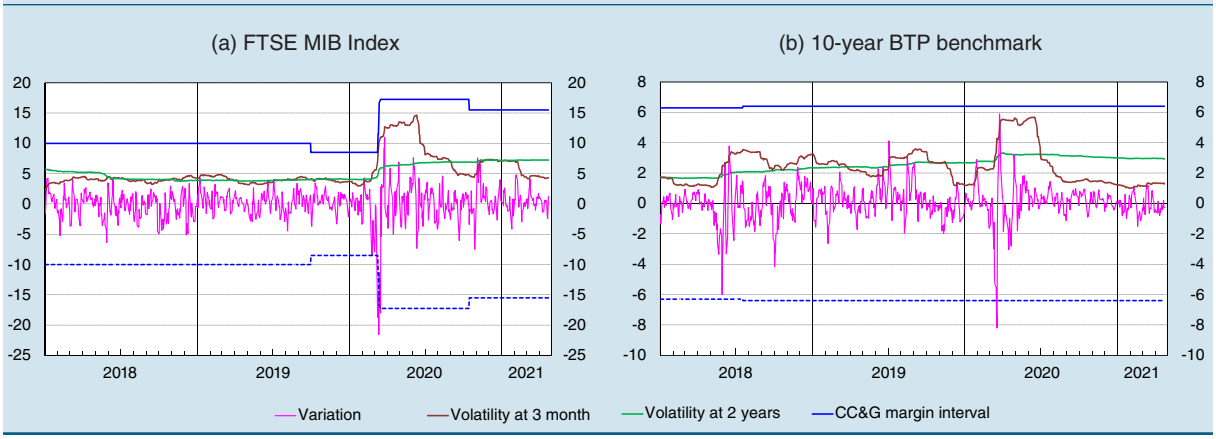
Source: Based on Bloomberg data.
(1) 5-day moving averages. – (2) Volatility implied by the prices of 2-month options on the Italian FTSE MIB index and, for the euro area, the Euro Stoxx 50 index. – (3) Difference between the volatility implied by the prices of 2-month options on the Italian and euro-area stock market indices. Right-hand scale. – (4) Difference between the implied volatility on 2- and 12-month options on the Italian FTSE MIB index. – (5) Difference between the implied volatilities of put and call options on the Italian stock market index with the same delta (0.25) and the same maturity (2 months). The indicator measures the relative price of the options that protect against a fall in the stock index compared with those that profit from a rise in it.

6 Because of the easing of tensions on financial markets, Italy's Companies and Stock Exchange Commission (Consob) decided not to extend further the temporary regime of enhanced transparency relating to changes in significant equity investments and declarations of investment objectives. The regime was introduced in April 2020 to deal with the turmoil in the financial markets following the outbreak of the pandemic; the ordinary legislation returned in force as of 14 April 2021 (see Consob, 'Lapse of the temporary regime of enhanced transparency related to changes of significant equity investments and declarations of investment objectives From 14 April only the ordinary legislation is again in force', press release, 12 April 2021).

The Italian central counterparty (Cassa di compensazione e garanzia, CC&G) left the margins applied to the equity and the Italian government bond markets unchanged (Figure 2.11). In response to the recommendations issued last May by the European Systemic Risk Board (ESRB) on liquidity risks arising from the margin calls of central counterparties (CCPs), CC&G indicated that the level of the parameters adopted, which are higher than the minimum regulatory requirements, and the approach of gradually varying the margins helped to avoid abrupt and significant increases in the requests for guarantees made to participants, even during the periods of greatest tension last year.[7]

Figure 2.11

Margins applied by CCPs and volatility of the financial instruments (1)
(daily data; per cent)



Sources: Based on data from Bloomberg, Refinitiv and CC&G data.
(1) The 3-day variation in the FTSE MIB Index value and the variation in the price of the benchmark 10-year Italian government bond (BTP) over a 5-day horizon. The volatility indicators are based on the value-at-risk (VaR) methodology and calculated with reference to a period of 3 months and 2 years, with a confidence interval of 99 per cent. The margins for BTPs are those referring to the respective duration bucket. The broken lines, which are mirror images of the margins, indicate the adequacy of the margin requirements to cope with the negative price fluctuations actually recorded in the market.

2.2 BANKS

Italian banks' funding conditions are relaxed, owing to the ample availability of deposits, the liquidity provided by the Eurosystem, and the low yields on the bond markets. The pandemic has not slowed down the plans to dispose of non-performing loans; the capital adequacy improved further, benefiting on the one hand from the public guarantees programme and the rebalancing of portfolio assets towards less risky exposures (which enabled a reduction in risk-weighted assets), and on the other hand, to a lesser degree, from the growth in common equity tier 1 capital.

The main risks for banks remain linked to a deterioration in credit quality and to profitability pressures; uncertainty about the macroeconomic outlook is also playing a part. The non-performing loan rate, which was largely stable over the course of 2020, shows signs of increasing, especially for lending to firms operating in the sectors hardest hit by the impact of the health emergency and the related containment measures. The share of performing loans for which banks reported a significant increase in credit risk is relatively high by international standards.

It is likely that the debt moratoriums still active, whose share is higher than the EU average, are delaying the emergence of difficulties in loan repayments. Banks must assess carefully, on a case

[7] Recommendation of the European Systemic Risk Board on liquidity risks arising from margin calls (ESRB/2020/6).

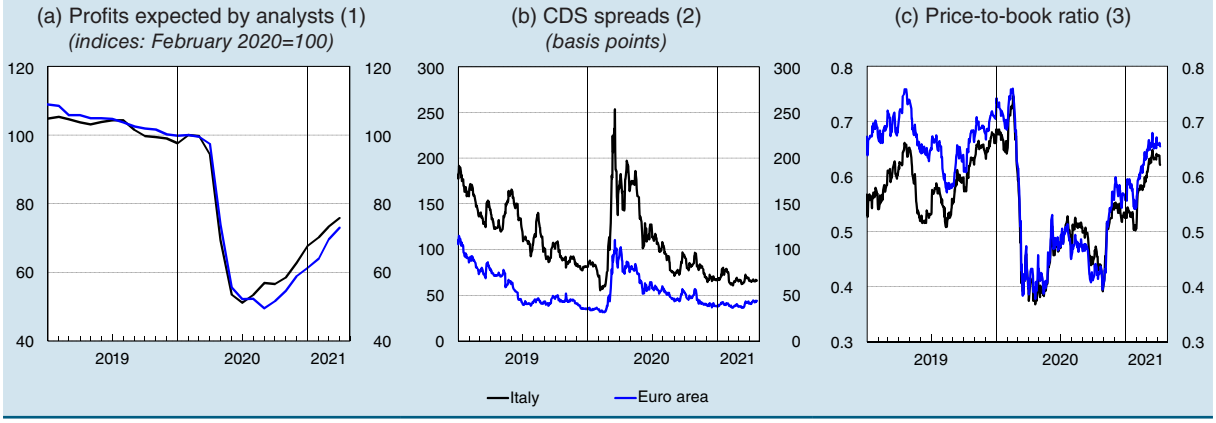
by case basis, firms' positions, taking action to support those with the potential to recover and making the necessary prudential and accounting reclassifications. The ongoing uncertainty calls for considerable prudence in decision-making relating to provisioning, which should be stepped up. This is especially true for less significant banks: indeed, for these banks, the share of positions for which a significant rise in credit risk was observed (classified as Stage 2 under IFRS 9) is lower than the banking system average, despite the fact that the share of debt moratoriums still active with respect to total loans is above average.

In 2020, the annualized return on equity declined to just below 2 per cent. This was due to a large extent to the increase in the loan loss provisions for performing loans made by financial intermediaries to bring forward likely future losses, including at the behest of the supervisory authorities. The reduction in profits was also affected by the extraordinary and non-recurring items entered on the books by some large intermediaries.

Analysts' expectations of bank profits have been improving gradually since November, but remain significantly below the levels – already moderate – recorded before the pandemic (Figure 2.12.a). Over the same period, more favourable expectations regarding profitability have led to a reduction in both the insolvency risk premium of Italian banking groups, measured by the prices of credit default swaps (CDS), and of CDS spreads compared with the average value for the other major European intermediaries (Figure 2.12.b). Overall, the structurally low profitability of euro-area banks translates into levels of the price-to-book ratio that are well below one, and equal on average to 0.62 for Italian intermediaries and 0.65 for euro-area intermediaries (Figure 2.12.c).

Figure 2.12

Italian listed banks: an international comparison



Sources: Based on data from CMA and Refinitiv.
(1) Net profit estimates for the next 12 months, in euros. Data refer to banks included in the Euro Stoxx Banks index. The data for euro-area banks do not include Italian banks. – (2) Simple average of 5-year CDS spreads. The data refer to the following sample of banks: for Italy, UniCredit and Intesa Sanpaolo; for the euro area, BNP Paribas, Société Générale, Crédit Agricole, Deutsche Bank, Commerzbank, Banco Santander and Banco Bilbao Vizcaya Argentaria. – (3) Average, weighted according to market value. For the banks included in the sample, see Note (1).

Asset risk

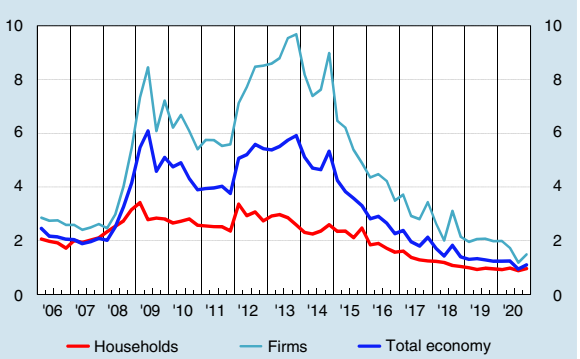
The ratio of new NPLs to total performing loans, which had remained largely stable at around 0.9 per cent until September 2020, rose to 1.1 per cent in the fourth quarter of last year (Figure 2.13). The increase was recorded both for loans to households (from 0.9 per 1.0 per cent) and for those to firms (from 1.2 to 1.5 per cent). The indicator rose mainly in the sectors most exposed to the impact of the health emergency and of the measures taken to contain the spread of the virus, such as the service sector.

In the second half of 2020, the ongoing uncertainty about the macroeconomic outlook led to a further increase, though less intense than in the first half of the year, in the amount of performing loans for which banks reported a significant increase in credit risk (moving from Stage 1 to Stage 2 of the IFRS 9 accounting standard). The ratio of Stage 2 loans to total performing loans went from 10.2 to 10.7 per cent, gross of loan loss provisions. In December 2020, the coverage ratio for total performing loans reached 0.6 per cent, up by 9 basis points for the year.

Loans classified under Stage 2 grew by almost 11 per cent (Table 2.1); the rise was more pronounced for less significant banks (18 per cent), which had instead recorded a lower increase compared with the banking system average in the first part of the year. However, for these banks, the share of Stage

Figure 2.13

Credit quality indicators (1)
(quarterly data; per cent)



Source: Central Credit Register.
(1) Annualized quarterly flows of adjusted NPLs in relation to the stock of loans at the end of the previous quarter net of adjusted NPLs. Data seasonally adjusted where necessary.

Table 2.1

Credit quality: amounts and shares of non-performing loans and coverage ratios
(billions of euros and per cent)

	Significant banks					Less significant banks					Total (1)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)
	December 2020 (3)														
Loans (4)	**1,872.1**	**1,820.3**	**100.0**	**100.0**	**2.8**	**227.8**	**221.2**	**100.0**	**100.0**	**2.9**	**2,345.6**	**2,279.4**	**100.0**	**100.0**	**2.8**
Performing	1,794.8	1,784.3	95.9	98.0	0.6	213.6	212.5	93.8	96.1	0.5	2,242.1	2,228.9	95.6	97.8	0.6
of which: Stage 2 (5)	209.6	202.3	11.2	11.1	3.5	16.1	15.6	7.1	7.0	3.3	239.3	230.7	10.2	10.1	3.6
Non-performing	77.3	36.0	4.1	2.0	53.5	14.2	8.7	6.2	3.9	38.9	103.6	50.5	4.4	2.2	51.2
Bad loans (6)	32.6	11.0	1.7	0.6	66.4	7.5	4.2	3.3	1.9	44.2	47.2	18.0	2.0	0.8	61.8
Unlikely to pay (6)	42.4	23.3	2.3	1.3	45.0	6.1	4.0	2.7	1.8	34.8	52.9	29.9	2.3	1.3	43.4
Past-due (6)	2.4	1.7	0.1	0.1	28.3	0.6	0.5	0.3	0.2	13.1	3.5	2.5	0.2	0.1	27.4
	June 2020														
Loans (4)	**1,804.7**	**1,737.3**	**100.0**	**100.0**	**3.7**	**207.4**	**200.5**	**100.0**	**100.0**	**3.4**	**2,255.0**	**2,172.2**	**100.0**	**100.0**	**3.7**
Performing	1,695.0	1,685.3	93.9	97.0	0.6	192.7	191.8	92.9	95.7	0.5	2,117.3	2,105.2	93.9	96.9	0.6
of which: Stage 2 (5)	191.9	185.4	10.6	10.7	3.3	13.7	13.2	6.6	6.6	3.4	216.5	208.8	9.6	9.6	3.5
Non-performing	109.7	52.0	6.1	3.0	52.6	14.7	8.7	7.1	4.3	40.8	137.7	67.0	6.1	3.1	51.4
Bad loans (6)	54.8	19.9	3.0	1.1	63.8	7.6	3.8	3.7	1.9	49.5	70.4	26.8	3.1	1.2	61.9
Unlikely to pay (6)	50.9	29.1	2.8	1.7	42.8	6.1	4.0	2.9	2.0	34.4	61.6	35.8	2.7	1.7	41.9
Past-due (6)	4.0	3.0	0.2	0.2	25.1	1.0	0.9	0.5	0.4	12.0	5.8	4.4	0.3	0.2	24.3

Source: Supervisory reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system.
(1) The total includes subsidiaries of foreign banks that are classified as neither significant nor less significant Italian banks, which account for about 11 per cent of total gross customer loans. Excludes branches of foreign banks. – (2) The coverage ratio is measured as the ratio of loan loss provisions to the corresponding gross exposure. – (3) Provisional data. – (4) Includes loans to customers, credit intermediaries and central banks. This aggregate includes all credit exposures classified at amortized cost and at fair value, excluding those held for trading or classified in the accounting portfolio comprising non-current assets and disposal groups held for sale. Rounding of decimal points may cause discrepancies in totals. The percentage composition is calculated on the basis of the amounts expressed in millions of euros. – (5) Based on the IFRS 9 accounting standard, Stage 2 includes loans whose credit risk has increased significantly since initial recognition. – (6) The non-performing loan sub-categories reflect the Bank of Italy's non-harmonized definition, which flanks the harmonized one used at European level. The definition adopted by the Bank of Italy allows for a distinction between exposures, in descending order of risk: bad loans, unlikely to pay, and non-performing past-due and/or overdrawn exposures, consistent with the definitions used in the past.

2 positions out of total performing loans remains well below the share for significant banks (7.5 per cent compared with 11.7 per cent, gross of loan loss provisions), and the share of debt moratoriums still active out of total loans to households and firms is higher as well (12.4 per cent versus 9.1 per cent; see the box 'Management and measurement of credit risk for loans subject to debt moratoriums').

MANAGEMENT AND MEASUREMENT OF CREDIT RISK FOR LOANS SUBJECT TO DEBT MORATORIUMS[1]

In response to the emergency situation brought about by the COVID-19 epidemic, Decree Law 18/2020 ('Cure Italy' decree) introduced the possibility for households and firms to ask financial intermediaries for a debt moratorium on performing loans. The financial intermediaries themselves have expanded the number of potential beneficiaries by introducing their own debt moratorium programmes or by doing so in conjunction with business and consumer associations. As of December 2020, the debt moratoriums still active and granted by banks under current legislation or in coordination with business associations[2] covered lending to households totalling €41 billion and lending to firms amounting to €106 billion;[3] the loans for which the moratorium had expired totalled €66 billion. The credit covered by the measures still in place accounted for 9.3 per cent of total lending to the non-financial private sector (see the table).

For lending to households and firms currently subject to a moratorium, the share of loans classified as Stage 2 under IFRS 9 out of total performing loans equalled 29.1 per cent, about 15 percentage points more than for total lending to the non-financial private sector. The share of Stage 2 loans was also higher (25 per cent) for exposures for which the moratorium had expired. The gap was attributable both to the heightened uncertainty about developments in the credit rating of loans benefiting from a moratorium as well as to the composition of those loans, which is tilted towards the sectors hardest hit by the pandemic crisis. For the firms that benefited from moratoriums, the average reduction in turnover since the outbreak of the pandemic, weighted by firms' respective bank exposures, was greater than that measured on total loans (17 per cent, against 15 per cent). Although the fall in turnover was greater, on average, for the firms that benefited from the moratoriums and that borrowed from less significant banks (19 per cent), for the latter banks the share of current moratoriums classified as Stage 2 was 10 percentage points lower than for significant banks (32 per cent, compared with 22 per cent).

The loans classified as Stage 3 (an aggregate approximating non-performing loans) accounted for a very modest share of the total, equal to 2.7 per cent for expired moratoriums (and 1.5 per cent for those still active). However, it is possible that this figure is not a reliable indicator of the credit quality of the loans subject to active moratoriums. Indeed, it is possible that expired moratoriums refer to relatively sound borrowers which had applied for a moratorium above all for precautionary reasons. For significant banks, the share of lending for which the moratoriums have expired and which are classified as Stage 3 is higher than for less significant banks (2.9 per cent, against 2.1 per cent).

1 By Giacomo Ceccobelli and Laura Coppola.

2 This refers to debt moratoriums that comply with the requirements set by the European Banking Authority (EBA), which are given a preferential treatment for reporting and prudential purposes; see EBA, 'Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis', April 2020, according to which the application of the definition of general payment moratorium does not necessarily entail a reclassification of the exposure as forborne (either performing or non-performing), unlike what is envisaged for debt moratoriums implemented as individual initiatives taken by banks.

3 The data refer only to the general moratoriums reported by banks and, therefore, differ from the data based on a weekly survey of a large sample of banks (see the Bank of Italy's website, 'Task force charged with overseeing the efficient and rapid roll-out of liquidity support measures', only in Italian).

The share of lending classified as Stage 2 and Stage 3 will likely rise further in the coming months, leading to a need to increase loan loss provisions. Our estimates indicate that the deterioration in credit quality in the two years 2021-22 could generate loan losses of about €9 billion (0.8 per cent of the banking system's total risk-weighted assets).

Table

Italian banks' lending to households and firms (1)
(per cent)

	Significant banks	Less significant banks	Total (2)
Lending subject to an existing moratorium			
Share out of total lending	9.1	12.4	9.3
Share of Stage 2 loans out of total performing loans subject to an existing moratorium	32.0	21.7	29.1
Share of Stage 3 loans out of total loans subject to an existing moratorium	1.5	1.5	1.5
Lending with an expired moratorium			
Share out of total lending	4.6	2.1	4.2
Share of Stage 2 loans out of total performing loans with an expired moratorium	25.7	15.1	24.9
Share of Stage 3 loans out of total loans with an expired moratorium	2.9	2.1	2.7
Total lending			
Share of Stage 2 loans out of total performing loans	16.3	9.7	14.4
Share of Stage 3 loans out of total loans	5.9	8.2	6.2

Source: Supervisory reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system.
(1) Data at December 2020. Based on the IFRS 9 accounting standard, loans at fair value that have an impact on overall profitability and loans valued at amortized cost are broken down by risk stage: Stage 1 (S1) includes loans whose credit risk has not increased significantly since initial recognition; Stage 2 (S2) includes loans whose credit risk has increased significantly since initial recognition; Stage 3 (S3) includes impaired loans. – (2) The total includes subsidiaries of foreign banks that are classified as neither significant nor less significant Italian banks.

Qualitative surveys of banks indicate that they have taken action to strengthen their credit management processes in response to the COVID-19 emergency. Both significant and less significant banks have updated their lending strategies and their internal reporting systems. To avoid a possible amplification of the effects linked with the expiry of the moratoriums ('cliff effect'), many banks are taking action to identify situations of structural financial weakness at an early stage. Some banks have also drawn up operational plans to increase their staff numbers with a view to proactively managing distressed borrowers.

At the end of 2020, the ratio of Stage 2 loans to total performing loans for Italian significant banks was about 4 percentage points higher than the euro-area average; the coverage ratio for total performing loans was higher by 0.1 percentage points. The greater prudence of Italian significant banking groups may be explained by the fact that the share of loans to the non-financial private sector benefiting from the debt moratorium with respect to total loans to those counterparties is relatively high and above the average for euro-area significant banks (9.1 and 2.6 per cent respectively).

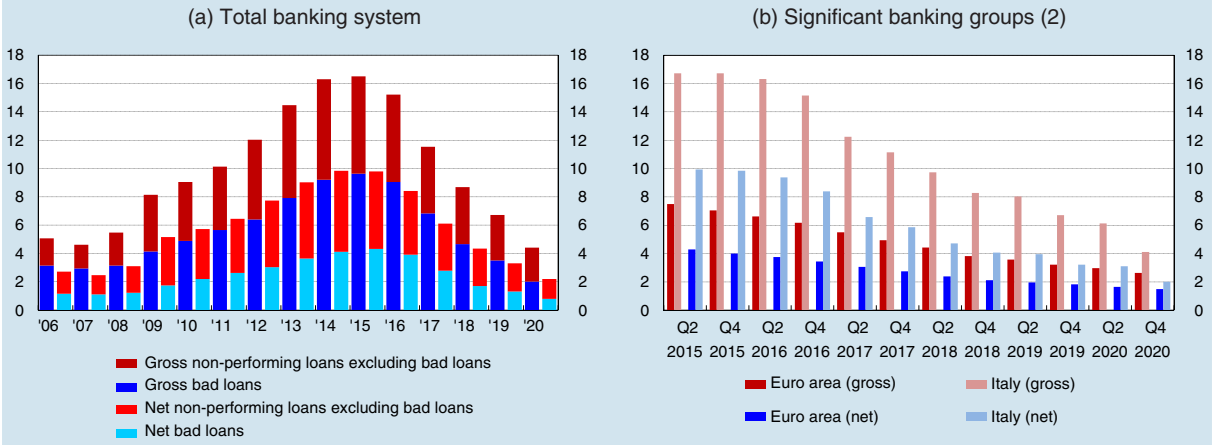
The stock of non-performing loans continued to decrease markedly in the second part of 2020; net of provisions, their amount decreased to €51 billion (€104 billion gross of provisions), about 25 per cent less than six months earlier. The ratio of NPLs, net of loan loss provisions, to total loans (including interbank and central bank exposures) also fell, to 2.2 per cent (Figure 2.14.a). For banks as a whole, the coverage ratio (i.e. loan loss provisions in relation to the stock of gross NPLs) was practically unchanged at 51.2 per cent. It was, however, significantly lower than the average for less significant banks (38.9 per cent). The gap with

significant banks is in part explained by the presence of intermediaries specializing in the management of non-performing loans, which acquire these positions and enter them in their balance sheets net of write-downs; if these intermediaries are excluded, the coverage ratio for less significant banks is 48.8 per cent.

In the second half of the year, the gap between the ratio of net NPLs to total loans for Italy's significant banking groups and that of European significant banks narrowed further (from 1.4 to 0.5 percentage points; Figure 2.14.b).

Figure 2.14

Non-performing loans: share of total loans (1)
(per cent)



Sources: Consolidated supervisory reports for Italian banking groups and individual supervisory reports for the rest of the system; ECB, Supervisory Banking Statistics for the euro area.
(1) Loans to customers, credit intermediaries and central banks. Includes banking groups and subsidiaries of foreign banks; excludes branches of foreign banks. Ratios are calculated net and gross of provisions. The data for December 2020 are provisional. – (2) The perimeter of significant banks and less significant banks differs between the dates in the figure: in the period since June 2019, when the reform of the cooperative banking sector was finalized, Cassa Centrale Banca became a significant banking group for supervisory purposes and 143 cooperative credit banks (BCCs) have joined the ICCREA group, which was already classified as significant before the reform.

The reduction in non-performing exposures was driven by disposals. In 2020, the loans sold and derecognized from banks' balance sheets totalled around €33 billion. Pending disposals, amounting to an additional €5 billion, further contributed to the reduction. The pandemic has not slowed Italian banks' plans to dispose of their NPLs, also thanks to the measure introduced by Decree Law 18/2020 ('Cure Italy' decree), which permits banks to convert a portion of deferred tax assets into tax credits against NPL sales.

About 70 per cent of the value of the bad loans sold so far by banks through securitizations was covered by the public guarantee of senior tranches under the state guarantee scheme for securitized bad loans (GACS; see the box 'The performance of operations backed by guarantee schemes for the securitization of bad loans').

THE PERFORMANCE OF OPERATIONS BACKED BY GUARANTEE SCHEMES FOR THE SECURITIZATION OF BAD LOANS[1]

Securitizations have been the main instrument used by banks to sell bad loans; the state guarantee scheme for securitized bad loans (GACS) has proven a valid tool to carry out these operations.

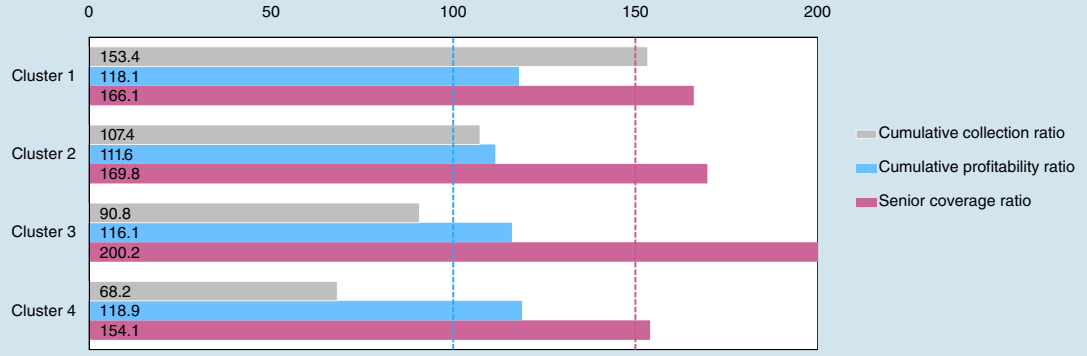
[1] By Giulia Mele and Daniele Piras.

Between February 2016 (when the GACS scheme was activated) and 31 December 2020, the Ministry of Economy and Finance provided such guarantee on the senior tranche of 27 securitization operations, which resulted in the issuance of securities totalling €17.7 billion (of which €14.4 billion senior, €2.1 billion mezzanine and €1.2 billion junior). The redemptions made so far on the senior tranches have reduced the State's exposure significantly; it stood at €10.4 billion at the end of last year. Based on the information provided by servicers, no operation recorded a loss.

To assess the performance of these operations, three indicators were considered. The first is the cumulative collection ratio[2] (CCR; see the figure), which is envisaged by the GACS scheme and is the most commonly used by market players: it is equal to the ratio between the overall amount recovered as at the latest payment date for the issued securities and the collections scheduled by the business plan at that same date. Based on this indicator, 16 operations show late repayment compared with what was planned (i.e. a CCR below 100 per cent), for an amount of about €550 million.

Figure

Assessment of performance based on the CCR, CPR and SCR indicators (1)
(per cent)



(1) The chart was obtained by breaking down the operations into 4 clusters based on the CCR indicator (Cluster 1: CRR>=120 per cent; Cluster 2: 120 per cent>CRR>=100 per cent; Cluster 3: 100 per cent>CRR>=80 per cent; Cluster 4: CRR < 80 per cent). For each cluster, the chart gives the simple average of the CCR, CPR and SCR. The number of operations in each cluster is equal to 4, 7, 11 and 5, respectively.

However, the CCR only provides a partial assessment of the performance of the operations, because it is influenced by the distribution over time of the expected recoveries, which can make it difficult to compare the performance of operations with similar risk profiles.

The second indicator is the cumulative profitability ratio (CPR), which provides an indication of the returns on positions that have already been closed (i.e. for which no further cash flows are expected): it is equal to the ratio between actual collections and the corresponding value indicated in the business plan. Based on the CPR, almost all the operations display satisfactory profitability, with a ratio equal to or greater than 100 per cent.

The third indicator is the senior coverage ratio (SCR), which gives a measure of the ability of the cash flows expected in the business plan to repay senior tranches: it is equal to the ratio between the remaining collections expected in the business plan (on positions that are still open) and the outstanding amount of senior tranches. Values below 100 per cent signal that the cash flows expected for the portfolio are

[2] The CCR is the parameter based on which performance objectives must be calculated pursuant to Decree Law 18/2016, as amended by Decree Law 22/2019.

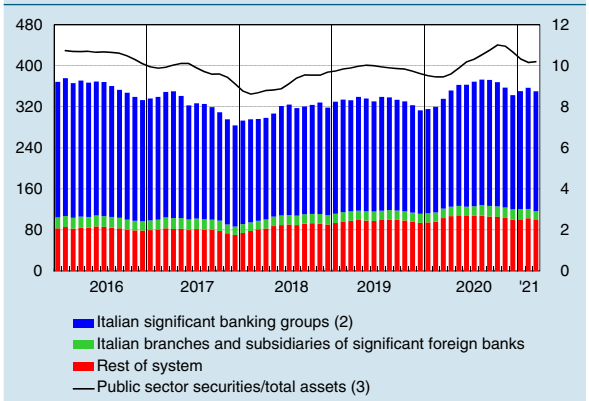
likely not able to repay the senior tranches in full. Values above 150 per cent are generally considered as an indication of a positive outcome regarding collections for the operation, given that the expected cash flows are likely going to be reasonably sufficient to repay the senior tranches in full, after taking into consideration the costs of the operation (legal fees, commissions, etc.) as well as possible revisions to the business plan; only five securitizations present an SCR below this threshold.

Overall, a joint analysis of the three indicators shows satisfactory profitability for the positions already closed and an adequate degree of coverage for senior tranches stemming from the cash flows expected for most of the operations.

During the period between September 2020 and March 2021, banks made net sales of public sector securities totalling €25 billion (Figure 2.15), mostly reducing the amount of bonds allocated to the portfolio of assets measured at fair value. The average share of securities recorded at amortized costs grew by about 0.5 percentage points, to 63.5 and 78.5 per cent for significant and less significant banks, respectively. The share of public sector securities in total assets fell by 1 percentage point, to 10.1 per cent.

Figure 2.15

Banks' investment in Italian public sector securities (1)
(monthly data; billions of euros)



Source: Supervisory reports.
(1) Comprises all public sector securities, including those issued by local authorities. Excludes Cassa Depositi e Prestiti SpA. – (2) Includes the cooperative credit banks merged into cooperative credit banking groups. – (3) Three-month moving average ending in the month indicated. The series 'total assets' does not include repurchased self-issued bonds. Right-hand scale.

According to our simulations, based on the banks' capital positions and the duration of individual securities in the portfolio at 31 January 2021, an upward shift of 100 basis points in the entire sovereign yield curve would lower the common equity tier 1 ratio (CET1 ratio) moderately on average, by 18 basis points (17 basis points for significant banks and 27 basis points for less significant banks).[8] This impact is lower than that estimated in September (27 basis points) owing to the reduction in securities measured at their fair value, especially for those allocated in the portfolio whose impact plays out through other comprehensive income. Banks will be able to mitigate the effects of a possible rise in the yields of government securities by resorting to a prudential filter to sterilize the impact on capital of changes in the value of exposures to general government.[9]

Refinancing risk and liquidity risk

Since September, households and firms have continued to accumulate liquidity in the form of bank deposits (Table 2.2; see Section 1.2). The growth in deposits has reduced the funding gap[10] by an additional 3 percentage points, to -10 per cent, or 7.1 percentage points lower than what it was in February of last year.

[8] On the one hand, the estimates do not take into consideration government securities held by foreign subsidiaries and by the insurance component of Italian banking groups (the amount of which is significant in some cases), and on the other, they do not take account of factors that could mitigate the impact, such as the existence of hedging operations and the tax effects.

[9] This possibility was introduced by Regulation (EU) 2020/873 (CRR 'quick-fix').

[10] The funding gap is the difference between the value of the loans and retail funding, expressed as a percentage of loans.

Table 2.2

Main assets and liabilities of Italian banks (1)
(levels and percentage changes)

Assets			Liabilities		
	Stocks (percentage shares)	12-month percentage changes (2)		Stocks (percentage shares)	12-month percentage changes (2)
Loans to Italian residents	46.4	4.5	Deposits of residents in Italy	43.6	7.0
Debt securities (3)	13.3	7.7	Deposits of non-residents	8.3	3.0
External assets	11.4	7.9	Bonds (8)	5.7	-3.0
Claims on the Eurosystem (4)	8.4	150.8	Liabilities vis-à-vis the Eurosystem (4)	10.9	-11.3
Claims on central counterparties (5)	1.4	-37.7	Liabilities towards central counterparties (5)	2.5	-18.2
Equity shares and participating interests	1.8	18.0	Capital and reserves	9.4	0.4
Claims on resident MFIs (6)	8.4	19.0	Liabilities towards resident MFIs (9)	9.2	6.0
Other assets (7)	8.9	-10.5	Other liabilities (10)	10.5	1.4

Source: Individual supervisory reports. Excludes Cassa Depositi e Prestiti SpA.
(1) Data as at February 2021. Excludes all liabilities to other banks resident in Italy. – (2) Adjusted for reclassifications, value adjustments and exchange rate variations for balance sheet items reported in currencies other than the euro. – (3) Only repos; represents foreign funding via central counterparties. – (4) Includes the accounts with the Eurosystem for monetary policy operations; see Tables 3.3a and 3.3b in 'Banks and Money: National Data', Banca d'Italia, Statistics Series. – (5) Only repos. – (6) Includes bonds issued by resident monetary and financial institutions (MFIs) and loans to resident MFIs. – (7) Includes: cash, money market fund units, derivatives, movable and immovable goods, and some minor items. – (8) Excludes bonds held by resident MFIs. – (9) Includes bonds held by resident MFIs and deposits of resident MFIs. – (10) Includes derivatives, deposits with a maturity above 2 years held by vehicle companies and some residual items.

In December, the net stable funding ratio (NSFR), which will become a binding requirement for European banks in June this year, stood at 124 per cent on average for Italian significant banks, up by 3 percentage points compared with June 2020; none of these banks had a ratio below 100, the regulatory minimum.

Thanks to the increase in deposits and to the abundant resources made available by the Eurosystem, recourse to the wholesale bond market by banks was limited, despite the favourable market conditions. In the first quarter of this year, net issues of these bonds amounted to about €1 billion (Figure 2.16.a), with very low interest rates (Figure 2.16.b). An amount equal to 11 per cent of the existing stock of bank bonds will mature before the end of 2021, for a total of €26 billion, a figure in line with that observed in recent years.

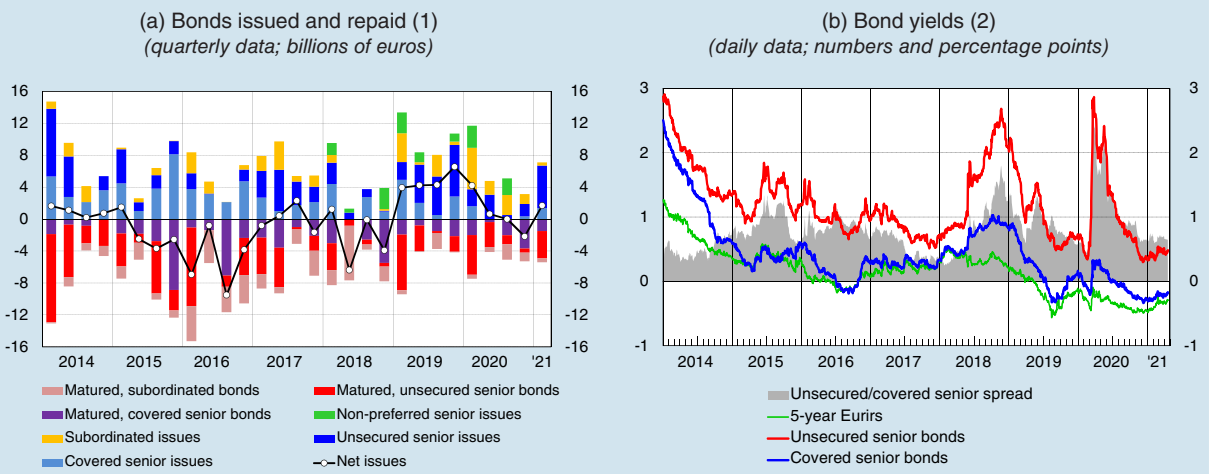
Over the course of 2020, the ratio between the holdings of instruments that can satisfy the minimum requirement for own funds and eligible liabilities (MREL) and the risk-weighted assets (RWAs) of significant banks rose by 2 percentage points on average, to 27 per cent. Overall, the eligible instruments held are sufficient to satisfy the new MREL targets, which will enter into force in 2022.

During the period between the end of September 2020 and the end of February 2021, the average liquidity coverage ratio (LCR) for the banking system as a whole declined slightly, to 197 per cent, well above the regulatory minimum of 100 per cent (Table 2.3).

A rebalancing of high-quality liquid assets was observed over that period: the share of government securities fell from 55 to 42 per cent, while liquidity held in the form of central bank reserves rose from 37 to 50 per cent. These developments were favoured by the growth in net refinancing on wholesale markets, where government securities serve as collateral. The net liquidity position was largely unchanged for both significant and less significant institutions. In absolute terms, this indicator remains at historically high levels.

Figure 2.16

Bank bonds placed on international markets



Sources: Dealogic and Bloomberg.
(1) Italian banks' issues on international markets. Does not include issues retained on issuers' balance sheets and those earmarked for the retail market. Includes bonds deriving from securitizations. – (2) Yields at maturity of Italian banks' bonds with residual maturity of 5 years.

Table 2.3

Liquidity indicators of Italian banks (1)
(per cent)

	LCR (2)	Net liquidity position at 1 month (3)	Net liquidity position at 3 months (3)
Significant banks	182.8	22.2	22.0
Less significant banks	318.3	24.0	25.2
Total banking system	**197.4**	**23.2**	**24.0**

Sources: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.
(1) Data as at February 2021. – (2) The liquidity coverage ratio is calculated as the ratio between total high-quality liquid assets and total net cash outflow over a 30-day horizon, see Basel Committee, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, Bank for International Settlements, January 2013). – (3) The net liquidity position is equal to the ratio of the sum of highly liquid assets and net outflows to the total value of the assets. For significant and less significant banks, the figure is calculated as the simple average of the liquidity positions of the individual banks.

Based on the situation in December 2020, in the event of a severely adverse scenario, with very substantial outflows of deposits and a reduction in the value of high-quality liquid assets, the banking system would be able to maintain a positive liquidity position for a period of three months (survival period); an equivalent exercise conducted in June 2020 yielded similar results.

The liquidity reserves deposited with the Bank of Italy in excess of the reserve requirements rose to €305 billion in the maintenance period that ended in March, increasing by €94 billion compared with November 2020 (Figure 2.17). These developments reflect above all the liquidity provided by the Eurosystem through its programmes for the purchase of public and private sector securities[11] and the improvement in the Bank of Italy's negative balance on the TARGET2 European payment system. At the moment, Italian banks as a whole are not being affected by the costs associated with the negative yields applied to reserves: the two-tier remuneration system introduced in October

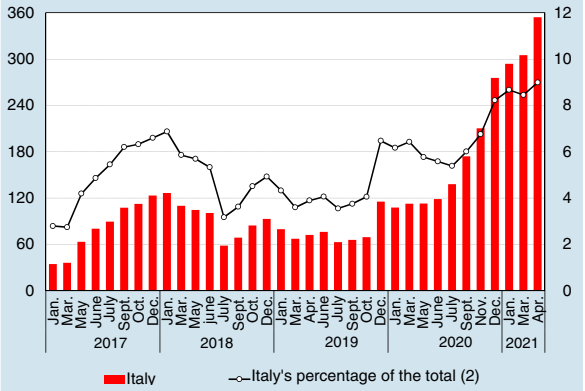
[11] Specifically, the expanded asset purchase programme (APP) and the pandemic emergency purchase programme (PEPP).

2019 excludes a portion of the excess reserves from the payment of the negative interest rates (€107 billion in the maintenance period that ended in March),[12] while the funds obtained through TLTRO III will be granted, in the period between June 2020 and June 2022, a more favourable remuneration compared with that applied to reserves.

Between November 2020 and March 2021, the amount of Eurosystem refinancing obtained by counterparties operating in Italy rose by €81 billion, to €448 billion, owing above all to participation in the seventh TLTRO III auction and to the decision taken by the ECB in December to increase the amount that can potentially be borrowed.

Figure 2.17

Excess liquidity of counterparties operating in Italy (1)
(billions of euros and per cent)



Sources: Based on Bank of Italy and ECB data.
(1) The months indicated on the x-axis are those ending each maintenance period. For April 2021, the data are up to 23 April. Excess liquidity is calculated as the sum of banks' average reserve balances, net of the reserve requirement, plus the average recourse to the deposit facility. – (2) Right-hand scale.

During the same period, given the increased recourse to refinancing, the assets used as collateral for Eurosystem refinancing operations rose by €64 billion, to €496 billion (Figure 2.18.a). Government securities make up the main class of assets pledged by Italian counterparties (35 per cent of the total; Figure 2.18.b), followed by bank loans (30 per cent), with the largest portion being loans pledged under the temporary additional credit claims framework.[13] Since April 2020, the share of these loans in total collateral has increased by 9 percentage points; following the introduction of the new measures adopted by the Bank of Italy to respond to the health emergency (see the box 'The collateral easing measures adopted by the ECB and the Bank of Italy in response to the COVID-19 emergency', *Financial Stability Report*, 2, 2020), 15 additional counterparties started pledging bank loans as collateral. The asset encumbrance ratio was largely stable at 29 per cent.

The volume of assets that can be pledged as collateral to obtain Eurosystem financing remains high. In fact, Italian banks have around €245 billion in securities eligible for use as collateral available outside the collateral pool (Figure 2.18.c), of which 85 per cent are government securities. Going forward, Italian banks may take greater advantage of the possibility to pledge loans backed by the public guarantees provided pursuant to the recent support measures.

Market risk and interest rate risk

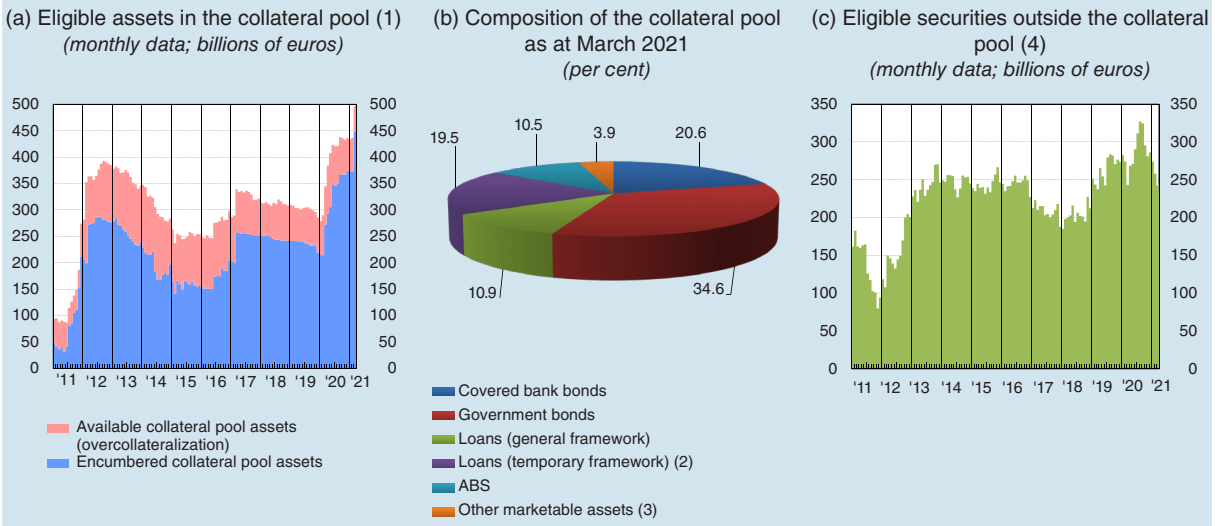
Our estimates indicate that in the early months of 2021, the Value at Risk (VaR) for banks' entire securities portfolio (banking and trading books) decreased compared with the highs recorded in

[12] Based on this system, part of banks' excess reserves, calculated as a multiple of the minimum reserve requirement, is exempt from the payment of the negative deposit facility rate (currently equal to -0.50 per cent). The ECB Governing Council set the maximum amount of the reserves that are exempt at six times the minimum reserve requirement for each bank; the interest rate for the exempt tier is equal to 0.00 per cent. Both parameters can be changed.

[13] Under the temporary framework, the eligibility criteria for assets that can be used as collateral are set by the individual national central banks pursuant to the rules provided by the ECB Governing Council (under the general framework, the criteria are set according to common rules that are applicable to the entire Eurosystem).

Figure 2.18

Eligible assets of the Italian banking system



Sources: Based on Eurosystem data and supervisory reports.
(1) End-of-period data for the monetary policy counterparties of the Bank of Italy. The volume of encumbered Eurosystem collateral pool assets includes the part covering accrued interest and refinancing in dollars. The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts. – (2) Under the temporary framework, the eligibility criteria for assets that can be used as collateral are set by the individual national central banks pursuant to the rules provided by the ECB Governing Council (under the general framework, the criteria are set according to common rules that are applicable to the entire Eurosystem). – (3) Includes bank bonds, including those backed by the state guarantee scheme, and securities issued by non-financial corporations and international organizations. – (4) End-of-period data for the entire banking system, not including Cassa Depositi e Prestiti SpA and Poste Italiane SpA. Amounts at market values as reported by the banks, net of the haircuts applied by the Eurosystem.

2020, but remains above the levels recorded before the pandemic (Figure 2.19.a). The decline is due above all to the reduction in market volatility and, to a lesser degree, to the decline in intermediaries' exposure.

The exposure of Italian significant banking groups to interest rate risk remains moderate overall and far below the thresholds set out in the EBA Guidelines.[14] Based on the data for December 2020, under the various interest rate scenarios considered in the EBA Guidelines, the weighted average reduction in the value of the banking book[15] would be between 0.5 and 2.8 per cent of tier 1 capital (Figure 2.19.b).[16] In the event of an upward shift of 200 basis points of the entire yield curve, which at present appears to be very unlikely, the average loss would be 2.8 per cent of tier 1 capital.

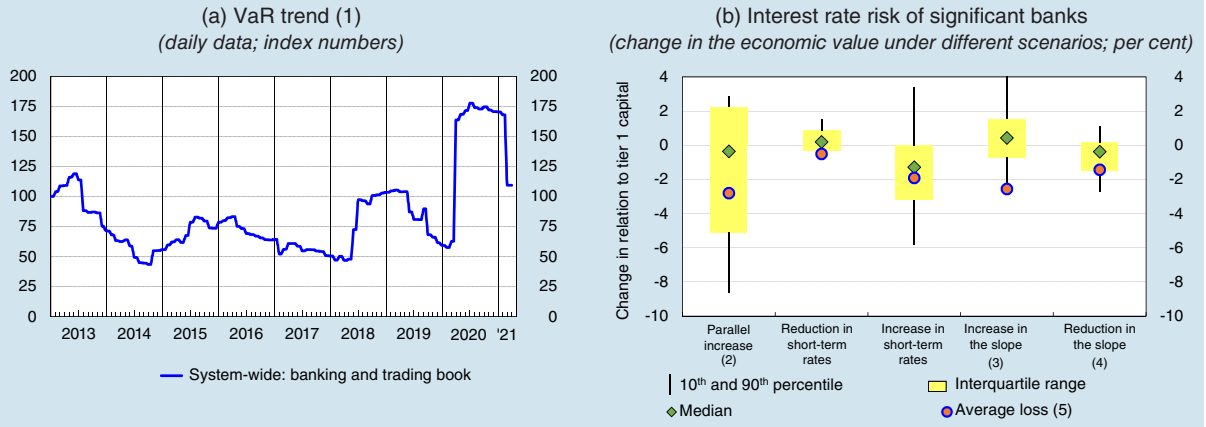
[14] The exposure to interest rate risk for prudential purposes is calculated by the banks and based on EBA guidelines (see EBA, 'Guidelines on the management of interest rate risk arising from non-trading book activities' July 2018). The results are sent to the supervisory authorities to be used in the Supervisory Review and Evaluation Process (SREP). The supervisory authorities may adopt measures if, in the scenarios considered, the losses exceed 20 per cent of total capital or 15 per cent of tier 1 capital.

[15] The average reduction is calculated by considering only the banks that will likely register a reduction in the value of the banking book.

[16] The main scenarios considered are: (a) an upward parallel shift of 200 basis points in the yield curve; (b) a reduction in short-term rates; (c) an increase in short-term rates; (d) an increase in the slope of the curve (due to the combined effect of a reduction in short-term rates and an increase in long-term rates); and (e) a reduction in the slope of the curve (due to the combined effect of an increase in short-term rates and a reduction in long-term rates).

Figure 2.19

Italian banks' exposure to market risk and interest rate risk



Sources: For VaR, based on data from supervisory reports, the securities registry database and Refinitiv; for interest rate risk, Short Term Exercise (STE) data at 31 December 2020 relating to 11 significant banking groups.
(1) Averages weighted according to the size of each bank's portfolio. VaR is the worst daily loss in the value of a portfolio with 99 per cent confidence. The indicator relating to the banking system as a whole is calculated using granular data on the stock and the characteristics of the assets in the portfolio of each Italian bank at the end of every month, taking account of the changes in risk factors over the last 250 business days. – (2) Increase of 200 basis points along the entire risk-free yield curve. – (3) A reduction in short-term rates and an increase in long-term rates. – (4) An increase in short-term rates and a reduction in long-term rates. – (5) Average of the changes in economic value, weighted by tier 1 capital, calculated by taking account of only those banks with negative changes under each scenario.

Capital and profitability

The capital adequacy of Italian banks improved in the second half of 2020. At the end of December, the CET1 ratio of the entire banking system[17] was equal on average to 15.5 per cent of RWAs, about 70 basis points higher than in June.

The improvement was seen in both significant and less significant banks (up by 70 and 130 basis points respectively, to 15.5 and 18.7 per cent), and largely reflects the reduction in RWAs, which declined from 3.7 to 1.4 per cent.[18] The reduction was due to the rebalancing of portfolio assets towards less risky exposures on the part of some of the major banking groups and also to the effects of the public guarantees provided to facilitate access to credit for households and firms, which contributed to reducing the average weighting of risk-bearing assets. At the end of December, the gap between the average capital ratio of significant banks in countries participating in the Single Supervisory Mechanism (SSM) and that of Italian significant banks was essentially nil. The leverage ratio, which measures capital adequacy relative to non-risk-weighted assets and which will take effect in June 2021, is higher for Italian banks (6.6 per cent) compared with the EU average (6.0 per cent).

The pandemic led to a significant reduction in profitability in 2020. The return on equity (ROE), net of extraordinary components, fell by 5.0 per cent to 1.9 per cent (Figure 2.20). Net interest income, while decreasing over the year on average (-3.3 per cent), recovered partially

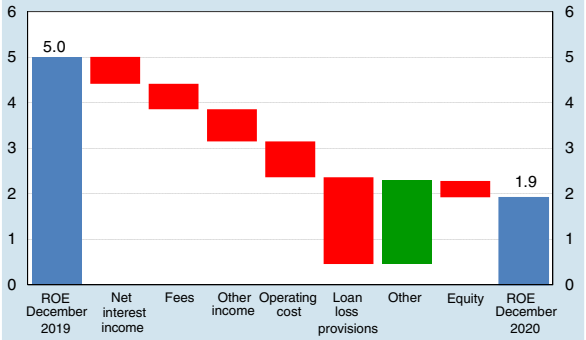
[17] The figure referring to the banking system also includes banks that are subsidiaries of foreign intermediaries, which account for around 9 per cent of total assets. The CET1 ratio for the subsidiaries of foreign banks was equal to 12.3 per cent, up by 30 basis points compared with the end of June 2020.

[18] For the less significant banks, almost two thirds of the improvement in the capital adequacy was due to the growth in CET1, while for the significant banks this accounted for less than one third of the improvement.

in the second half. The reduction in the unit margin, ascribable both to the low market yields and to the increase in the share of loans benefiting from a public guarantee and for which the interest rate applied is below the average rate offered to customers, was partly offset by the rise in the volume of lending to households and non-financial firms.

Figure 2.20

Breakdown of the change in ROE between December 2019 and December 2020 (1)
(percentage points)



Sources: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.
(1) Changes are expressed as a ratio to own funds and reserves. A green/red bar indicates a positive/negative contribution to the initial ROE at the start of 2019, giving the final ROE value for 2020. Data for 2020 are provisional.

Other revenues declined as well, especially those from the trading and sale of financial assets considered at fair value that have an impact on overall profitability. Gross income fell by 5.1 per cent; the overall decline in revenues negatively impacted ROE by about 1.8 percentage points. Operating expenses rose by 3.3 per cent, mainly owing to non-recurring costs relating to the early termination of employment contracts. Net of these costs, operating expenses decreased by 2 per cent. The savings on indirect staff costs, on communication and marketing expenses, and on buildings were more than offset by the integration costs connected with an important merger that took place in the sector and by the increase in contributions to resolution funds[19] and deposit guarantee schemes.[20] Finally, the rise in loan loss provisions, which grew by 33.1 per cent, had considerable repercussions on profitability, reducing ROE by 2 percentage points. Conversely, the decrease in taxes and the profits deriving from the negative goodwill generated by the aforementioned merger had a positive effect on profitability.

2.3 INSURANCE COMPANIES AND THE ASSET MANAGEMENT INDUSTRY

Insurance companies

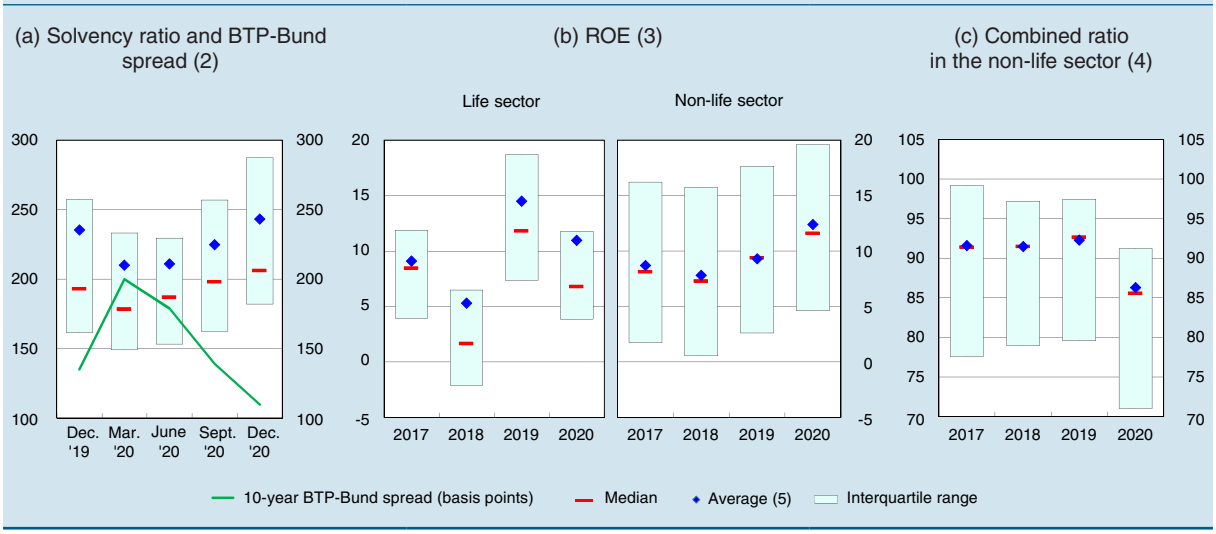
In the second half of 2020, the Italian insurance market showed signs of recovery compared with what was observed in the first months of the crisis caused by the pandemic. The average solvency ratio[21] of insurance companies rose to 243 per cent, reaching a higher level than that of end-2019 (235 per cent; Figure 2.21.a). The improvement was mainly attributable to the increase in the value of assets due to the upturn in their prices. Insurance companies' capital also benefited from the limitation on dividend distribution following the recommendation of the Italian Insurance Supervisory Authority (Ivass) to adopt a prudent policy approach.[22]

[19] Ordinary contributions to the Single Resolution Fund and extraordinary contributions (€310 million) to the National Resolution Fund.
[20] Ordinary contributions to the Interbank Deposit Protection Fund (€285 million) earmarked for topping up the resources used to fund the interventions made in the period 2015-2020.
[21] For the definition of the solvency ratio, see note (2) to Figure 2.21. The regulations require a ratio of 100 per cent or more.
[22] Ivass has aligned itself with the updated recommendations of the ESRB and of the European Insurance and Occupational Pensions Authority (EIOPA) on the distribution of dividends until 30 September 2021 (see Recommendation ESRB/2020/7; Ivass, notice of 30 July 2020, which updates the recommendations on dividend distribution and remuneration policies; Recommendation ESRB/2020/15; EIOPA, *Financial Stability Report*, December 2020; Ivass, press release of 29 December 2020).

At the end of 2020, profitability was about 12 per cent, slightly lower than in 2019. ROE was 11 per cent in the life sector, down by more than 3 percentage points on the previous year (Figure 2.21.b); the lower profitability was mainly caused by the decrease in premium income, only partly offset by the recovery in asset values. The reduction in the combined ratio (Figure 2.21.c), due in part to the effects of the restrictive measures subsequent to the public health emergency, was reflected positively in the ROE of the non-life sector, equal to 12 per cent and up by 3 percentage points compared with the figure for end-2019. Claims in the non-life sector were not affected by the growth in risks caused by the pandemic, given the limited diffusion in Italy of contracts providing pandemic-related insurance cover.[23]

Figure 2.21

Main balance sheet indicators for Italian insurance companies (1)
(per cent)



Sources: Ivass and calculations based on Refinitiv data.
(1) The data for 2020 are preliminary. – (2) The solvency ratio is calculated as the ratio of own funds held for coverage to the solvency capital requirement established under Solvency II. The data are taken from the quarterly Solvency II supervisory reports based on the quantitative reporting templates. The BTP-Bund spread refers to the end of each period. – (3) Ratio of earnings to shareholders' equity. – (4) Ratio of surrenders plus operating expenses to premium income. – (5) Weighted average with weights equal to the denominator of each ratio.

Analysts' expected profits for the Italian and European insurance markets as at April 2021 are in line with pre-pandemic levels; insurance companies' share prices are also on the increase and are higher than at the end of 2019 (Figure 2.22).

In December 2020, investments with market risks borne by Italian insurance companies had increased by 7 per cent compared with June, reaching €834 billion; portfolios remained concentrated in government bonds, to a much greater extent than the European average (52 per cent of the portfolio, against 28 per cent at European level; Figure 2.23.a).

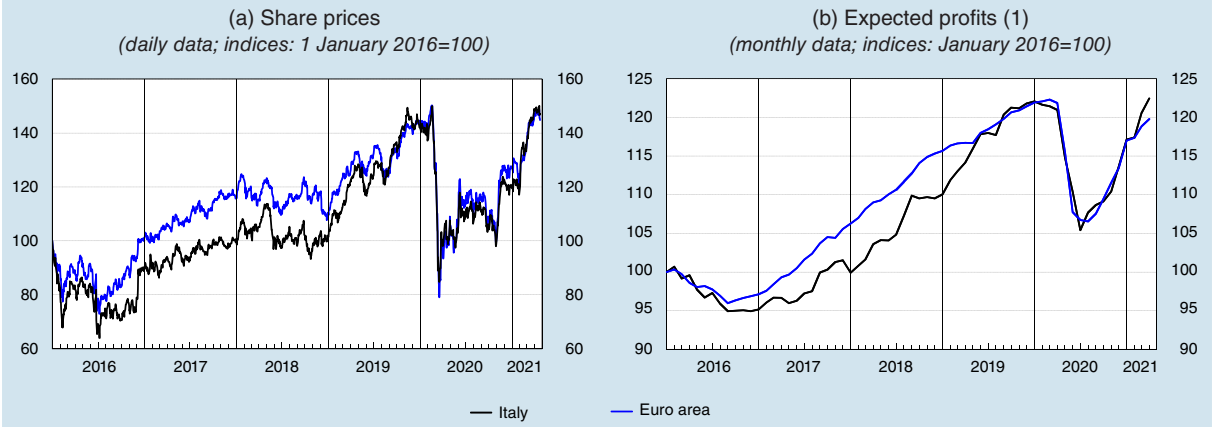
Investment in corporate bonds, equal to 20 per cent of the portfolio, mainly included securities issued by non-financial foreign corporations (Figure 2.23.b). Some 23 per cent of exposures to corporate bonds were towards sectors particularly hard hit by the pandemic (Figure 2.23.c).[24] For those investments that

[23] Especially those insurance contracts that compensate policyholders for losses caused by the interruption of business.
[24] The main sectors hit by the pandemic are: accommodation, food and beverage services; warehousing and transportation; and manufacturing (see ECB, *Economic Bulletin*, 5, 2020).

were more exposed to the impact of the crisis, in the second half of 2020, the share of exposures with a BBB rating fell by 2 percentage points (to 47 per cent, from 49 per cent in June 2020), and the shares of both high yield and non-rated bonds increased by 1 percentage point; the share with an A rating or higher remained stable at 38 per cent.

Figure 2.22

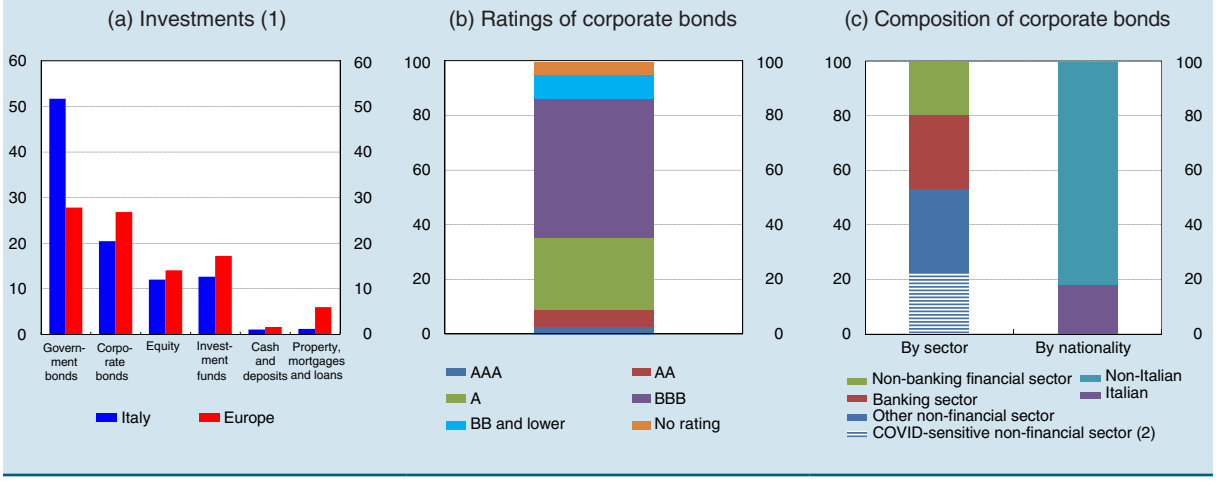
Italian and euro-area insurance companies



Source: Calculations based on Refinitiv data.
(1) Average of expected earnings per share in the 12 months following the reference date of a sample of the leading Italian and euro-area insurance companies (weighted by the number of outstanding shares). For Italy, the data refer to Assicurazioni Generali, Mediolanum Assicurazioni, Poste Italiane, Società Cattolica Assicurazioni and UnipolSai. For the euro area, the data refer to the leading companies included in the Datastream euro-area insurance sector index.

Figure 2.23

Insurance company investments
(data at 31 December 2020; per cent)



Sources: Ivass and EIOPA.
(1) The data for Europe, as at 30 September 2020, refer to the European Economic Area. – (2) These are non-financial bonds in the sectors hardest hit by the COVID-19 pandemic.

The narrowing of the BTP-Bund spread had a positive effect on insurance companies' net unrealized gains, which amounted to €86 billion in March 2021, up by €15 billion compared with end-2019 (Figure 2.24).

The degree of liquidity of insurance company assets remains adequate: the liquid asset ratio stood at 64 per cent in December 2020 and was stable compared with June.[25]

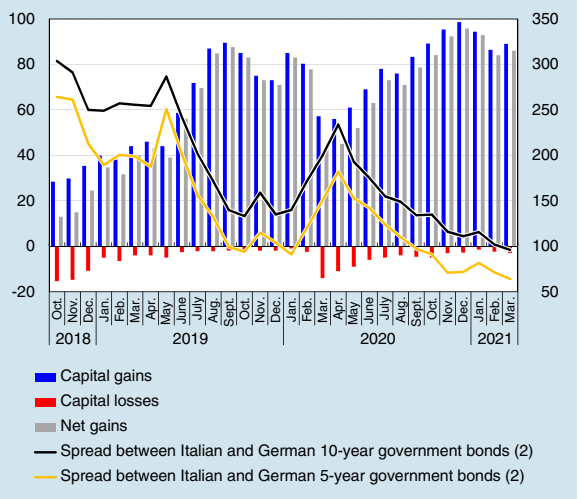
In the life sector, the ratio of surrenders to premium income[26] stayed at historically low levels; it decreased slightly in March 2021 compared with the previous year, from 44 to 43 per cent, because of greater growth in premium income than in surrenders (Figure 2.25.a).

The monitoring of the liquidity position carried out by Ivass (see the box 'Launch of liquidity risk monitoring in the insurance sector', *Financial Stability Report*, 2, 2020) reveals no tensions in the short-term horizon forecasts for net flows made by Italian companies.

Nevertheless, insurance companies remain exposed to risks stemming from prolonged low interest rates.[27] At national level, companies in the life sector have reacted by gradually reducing the guarantees offered (see the box 'The effects of low interest rates on Italian insurance companies',

Figure 2.24

Unrealized gains and losses (1)
(monthly data; billions of euros and basis points)

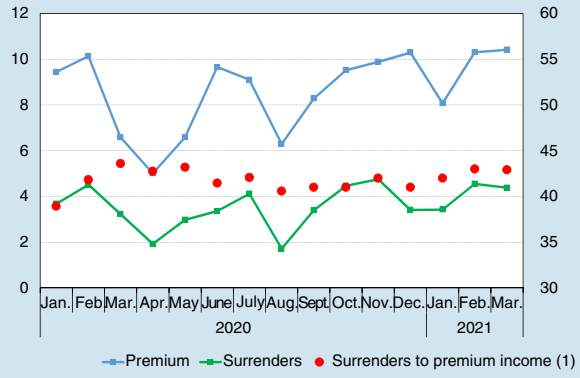


Sources: Ivass and calculations based on Refinitiv data.
(1) The unrealized gains and losses are the difference between the market value and the book value of portfolio securities. – (2) Right-hand scale. End-of-period data.

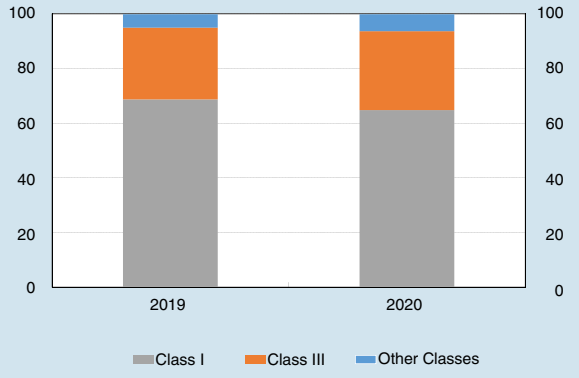
Figure 2.25

Premium income in the life sector

(a) Premium income and surrenders in the life sector
(monthly data; billions of euros and per cent)



(b) Premium income per sector (2)
(per cent)



Source: Ivass.
(1) The indicator is calculated as the ratio of surrenders to premium income. Cumulative data. Right-hand scale. – (2) Class I mainly includes policies that can be revalued (traditional life insurance policies with guaranteed returns); Class III is mainly composed of unit- and index-linked policies (life insurance policies where policyholders bear the risk); Other classes include other kinds of life insurance policies.

[25] Liquid assets are calculated by applying haircuts to the different asset categories, in line with the banking sector rules set by Commission Delegated Regulation (EU) 2016/322 of 10 February 2016.

[26] The ratio is an indicator of potential liquidity problems for life insurance companies.

[27] EIOPA, 'Supervisory statement on the impact of the ultra-low/negative interest rate environment', 20 February 2020, in which EIOPA raised market awareness of the vulnerabilities that the reduced profitability of investments produces in the insurance sector, encouraging the adoption of measures to monitor them and limit their negative effects.

Financial Stability Report, 2, 2019). In 2020, the share of traditional life insurance policies with a guaranteed minimum return fell by 4 percentage points compared with the previous year, while the share of policies where the investment risk is borne entirely or partially by policyholders increased by 3 percentage points (Figure 2.25.b). The share of mathematical provisions relating to life insurance policies with a guaranteed return of 1 per cent or lower rose to 72 per cent, from 67 per cent in 2019.

Investigating the main risks for the insurance market will be the object of this year's stress test, to be conducted by the EIOPA, which will involve the leading European insurance groups from May to December. The analyses aim to verify the resilience of the insurance sector to an adverse scenario,[28] applied to end-2020 data. The shocks will be of a financial and insurance kind, and for the first time, the impact on the short-term forecast for the liquidity position will also be assessed.

The opinions on the review of the Solvency II directive,[29] sent to the European Commission by the ESRB[30] and EIOPA[31] in 2020, included proposals underlining the importance of improving the tools for systemic risk mitigation and of drawing up a harmonized recovery and resolution regulatory framework for the European insurance sector (see the box 'The macroprudential measures proposed by EIOPA in the 2020 review of Solvency II').

THE MACROPRUDENTIAL MEASURES PROPOSED BY EIOPA IN THE 2020 REVIEW OF SOLVENCY II[1]

In December 2020, the EIOPA delivered its Opinion on the review of Solvency II,[2] in response to the specific requests of the European Commission. Among these, EIOPA proposed supplementing the current microprudential regulatory framework of the insurance sector with the macroprudential perspective and giving the national supervisory authorities powers for dealing with the sources of systemic risk and fostering financial stability.[3]

The measures indicated by EIOPA concern interventions on capital and on liquidity, safeguards for companies' exposures and forms of preventive planning. Some of the proposals are designed to broaden the discretionary powers of the supervisory authorities to: (a) set temporary capital surcharges for insurance companies in order to mitigate systemic risk; (b) limit or suspend, in exceptional cases, dividend distribution, variable remuneration, and share buy-backs, in order to strengthen the financial position of insurance companies; (c) temporarily freeze the redemption rights, as an extreme measure;[4] and (d) ask insurance companies to draw up systemic risk

1 By Federica Pallante (Ivass).

2 EIOPA, 'Opinion on the 2020 review of Solvency II', 17 December 2020.

3 In order to favour financial stability, the macroprudential measures pursue the intermediate objective of attenuating both the probability and the impact of systemic risk. To this end, five operational objectives have been defined that the competent authorities in charge of macroprudential policies for the insurance market should pursue: (a) to guarantee a sufficient loss-absorption capacity; (b) to discourage excessive involvement in specific products and activities; (c) to discourage excessive levels of direct and indirect exposure concentrations; (d) to limit procyclicality; and (e) to discourage risky behaviour (see EIOPA, 'Background document on the Opinion on the 2020 review of Solvency II', 17 December 2020).

4 The measure can only be adopted in exceptional cases and after suspending dividend distribution, variable remuneration and share buy-backs; this requirement was introduced after the spread of the COVID-19 pandemic.

28 The market shocks were defined in collaboration with the ESRB.

29 The Solvency II directive provides for the possibility of revising the regulations five years after they come into force. To this end, the European Commission obtained technical opinions from the sectoral authorities and will submit a legislative proposal to the European Council and Parliament in 2021.

30 ESRB, 'Solvency II review', 16 October 2020.

31 EIOPA, 'Opinion on the 2020 review of Solvency II', 17 December 2020.

management plans (in the event that supervised entities could create or magnify such a risk), liquidity risk management plans (where vulnerabilities are identified) and preventive recovery or resolution plans.

EIOPA has also recommended granting the national authorities the discretionary power to intervene in order to contain the risks due to exposure concentrations,[5] also before a crisis situation becomes apparent, and to supplement with macroprudential perspectives both the own risk and solvency assessment (ORSA) and the application of the prudent person principle.[6]

Lastly, the European authority proposed broadening the current microprudential regulatory framework with minimum harmonization rules for managing crises at European level, designed to facilitate cooperation between Member States.

5 EIOPA observes in its Opinion that high concentrations per se do not constitute a risk to financial stability.

6 The prudent person principle, regulated by Article 37-*ter* of Legislative Decree 209/2005 (Code of Private Insurance), requires companies to be aware of the risks of their investments: they must assess, manage and control these risks, and take account of them when assessing their solvency needs. When choosing assets, companies must also respect the criteria for security, quality, liquidity, profitability and portfolio diversification.

The asset management industry

In 2020 and in the first quarter of 2021, net subscriptions of Italian open-end investment funds were positive overall (Figure 2.26); since the recovery in subscriptions that began in April 2020, net redemptions of shares have been entirely confined to the flexible and hedge sectors. There have been no serious tensions regarding Italian open-end investment funds' liquidity management.

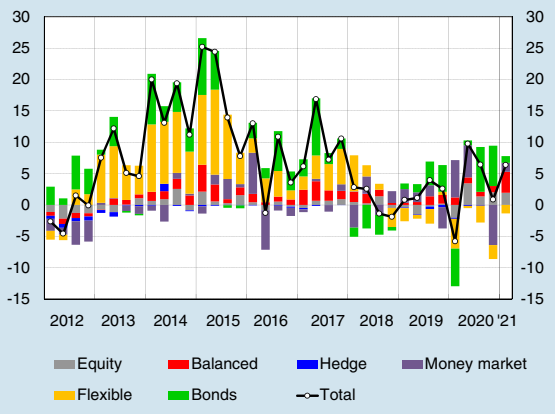
The degree of liquidity (6.7 per cent in March) is still high by historical standards.[32] No significant changes have been observed in the lines of credit available or in indebtedness.[33]

The share of Italian funds vulnerable to particularly high demand for redemptions (those with a liquidity risk indicator of less than one)[34] has increased since September, but is still low (these are funds that accounted for 4.1 per cent of total

Figure 2.26

Open-end Italian investment funds: net subscriptions (1)

(quarterly data; billions of euros)



Source: Assogestioni.
(1) The data refer to funds based in Italy and abroad, run by asset management companies belonging to Italian groups. The data on the money market segment for Q1 and Q2 of 2016 and for Q1 of 2018 reflect several large transactions by institutional investors. Provisional data for Q1 2021.

32 The degree of liquidity is defined as the ratio of current account holdings (net of purchases, sales and subscriptions to be settled) to net assets.

33 Italian legislation envisages that Italian open-end investment funds can only take out loans on a temporary basis, in relation to the need to invest in or disinvest from fund assets, and within the maximum limit of 10 per cent of the overall net value of the fund.

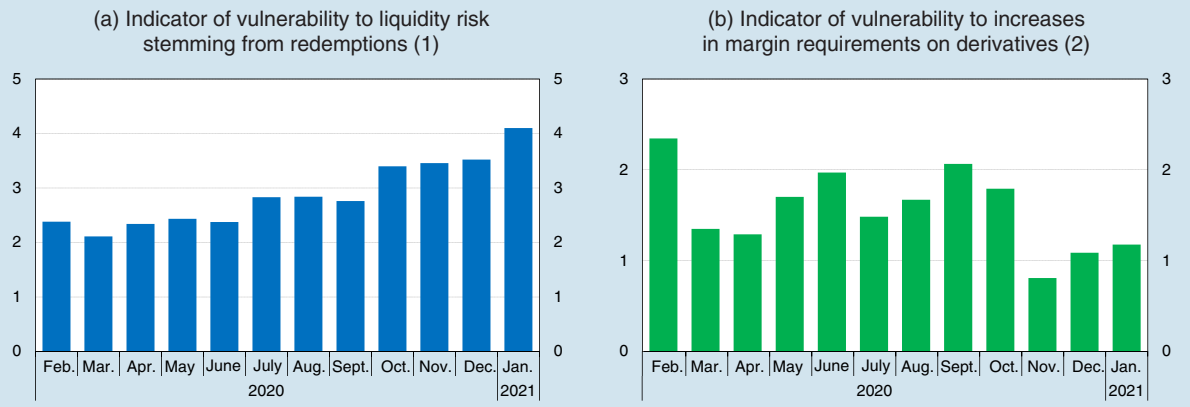
34 The liquidity indicator is equal to the ratio of the fund's assets weighted by the degree of liquidity of its components to net redemptions under the stress scenario (see note (1) to Figure 2.27).

sector assets in January 2021; Figure 2.27.a).[35] Overall, Italian open-end investment funds have a low level of exposure in derivative instruments and the liquidity risk connected with changes in the margin requirements has declined over the last few months. In January, the funds vulnerable to this specific type of liquidity risk represented 1.2 per cent of total sector net assets (Figure 2.27.b).

Figure 2.27

Liquidity risk indicators for Italian open-end investment funds

(February 2020-January 2021; percentage share of net assets)



Sources: Supervisory reports and ECB (Centralised Securities Database).
(1) Ratio of the net assets of funds with a liquidity risk indicator of less than 1 to total sector net assets. Open-end investment funds in the bond, flexible and mixed segments are included. The liquidity risk indicator is equal to the ratio of the fund's assets weighted by the degree of liquidity of each exposure to net redemptions under the stress scenario. The stress scenarios are equal to the average of the values above the 99th percentile of the distribution of net monthly redemptions in relation to total assets for each of the sectors analysed between January 2008 and December 2020 (high yield and emerging country funds: 14 per cent; Euro area: 30 per cent; United States and global: 24 per cent; mixed funds: 24 per cent). – (2) Ratio of vulnerable funds' net assets to total sub-sector net assets. Vulnerable funds are those whose ratio of liquid assets to margin requirements, determined under the stress scenario and applied to futures positions, is less than 1. The stress scenario is equal to the 1st percentile in the distribution of variation margins in the period from January 2008 to November 2020. Liquid assets include bank current accounts, government securities of euro-area countries, and government securities of other countries with ratings the same as or higher than AA.

At international level, a programme has been launched to strengthen the stability of non-bank intermediaries in light of the areas of vulnerability that emerged following the tensions on the financial markets in March 2020 (see the box 'The tensions on the financial markets in 2020: indications for non-bank intermediation and financial stability').

THE TENSIONS ON THE FINANCIAL MARKETS IN 2020: INDICATIONS FOR NON-BANK INTERMEDIATION AND FINANCIAL STABILITY[1]

The financial market tensions in March 2020 highlighted significant liquidity mismatches in the non-bank intermediaries sector, mismatches that in turn helped to amplify market volatility.[2] Specifically, there were sizeable redemptions in the segment of non-government money market funds; some of these redemptions may have been helped by the structure

1 By Raffaele Gallo and Dario Portioli.
2 FSB, 'Holistic review of the March market turmoil', November 2020.

35 Vulnerable funds mainly specialize in the international, high-yield and emerging-market sectors. The Bank of Italy regularly examines the funds' exposure to liquidity risk and the safeguards adopted by asset management companies for managing such risk.

and regulations of certain types of these funds.[3] There were also substantial outflows from some categories of open-end funds that invest in less liquid assets, due to both their greater exposure to liquidity risk and the uncertainty over the value of their investments at a time of considerable market volatility. The demand for liquidity by intermediaries went up in part because of the significant increases in margin requirements on derivatives. Lastly, in the long-term government securities and corporate bond markets, the demand for liquidity, especially on the part of leveraged investors, led to substantial sales, thereby contributing to an increase in funding costs for issuers. Market conditions then improved starting from the end of March onwards, especially following the interventions of the monetary authorities (see *Financial Stability Report*, 1, 2020).

The events of March 2020 have shown the need to evaluate the introduction of regulatory measures designed to prevent excessive risk-taking by non-bank intermediaries and to avoid significant liquidity mismatches in the sector. To this end, the FSB has launched a work programme to reinforce the stability of non-bank intermediaries.[4] The programme envisages the drawing up of specific measures and analyses of the main vulnerability factors in the sector. The areas requiring intervention comprise: (a) drawing up measures to strengthen the resilience of money market funds; (b) analysing the effectiveness of liquidity risk management tools for open-end funds; (c) verifying the capacity of market operators to manage the liquidity risk deriving from increases in margin requirements; and (d) assessing the impact of the actions of leveraged investors on the functioning of the bond markets. The programme also proposes strengthening the analysis of the systemic risks stemming from non-banking finance and evaluating policies for addressing such risks adequately.

This year, Italy's G20 Presidency is promoting the implementation of the FSB's work programme by defining measures for money market funds,[5] making progress in the studies on the main vulnerability factors identified and drawing up macroprudential guidance for the regulation of non-bank intermediaries.

As regards Italian non-bank intermediaries, the Bank of Italy has been examining the liquidity conditions of open-end funds since March 2020 by collecting data on a weekly basis. Overall, Italy's asset management industry has not recorded any critical liquidity conditions associated with the spread of the pandemic; no intermediary has activated any liquidity management tools. In addition, a specific supervisory initiative was conducted in 2020 on the liquidity risks of open-end investment funds, as part of a common supervisory action coordinated by ESMA.[6] The results suggest a good level of adequacy in the risk management systems of Italian funds. Nevertheless, in line with what ESMA has highlighted at European level, some areas to be improved have been identified as regards the documentation, procedures and methodologies adopted for liquidity risk management; it is also necessary in some cases to improve the preliminary assessment of investments, the checks on data quality and the control mechanisms for such risks.

[3] For example, the structure of money market funds that, in normal times, keep the net asset value of their shares stable (constant net asset value funds or low volatility net asset value funds), may create expectations that their shares are risk-free assets. Nevertheless, during periods of stress, when the market value of the fund's shares declines, subscribers might ask to redeem them because they fear that these shares may no longer be redeemed at nominal value. Instead in Italy, money market funds, which do not use these portfolio assessment criteria and invest almost exclusively in short-term government bonds, have not had any significant liquidity problems.

[4] FSB, 'FSB Work Programme for 2021', January 2021.

[5] N. Branzoli, A. Miglietta and L. Zucchelli, 'Areas of reform of the MMFs' regulatory framework: an overview and potential options', Banca d'Italia, Notes on Financial Stability and Supervision, forthcoming.

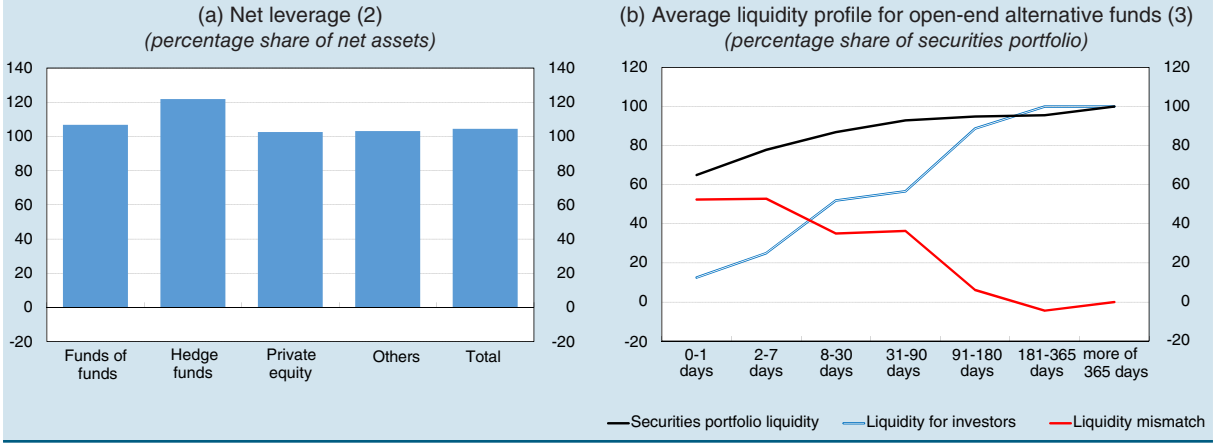
[6] For more information, see ESMA's website, 'ESMA launches a Common Supervisory Action with NCAs on UCITS liquidity risk management'.

The assets of alternative property funds grew by 12 per cent in 2020, above all because of the expansion in the sector of funds that invest in firms' risk capital (private equity) and of those specializing in direct financing or in purchasing loans originating from other intermediaries (which reached €16 billion and €4 billion worth of assets respectively at the end of the year). In the second half of 2020, the first six funds were authorized that mainly specialize in investing in financial instruments issued by Italian SMEs that are compliant with the rules on the new long-term individual savings plans (alternative PIRs).[36]

The risks to financial stability stemming from alternative property funds, which accounted for 9 per cent of the overall net assets of Italian funds at the end of 2020, remain low. The potential risks associated with the scant liquidity of assets are mitigated by the legislation, which obliges funds that invest more than 20 per cent of their assets in illiquid assets to be set up as closed-end funds. Leverage is modest overall (104 per cent of net assets; Figure 2.28.a) and lower than the European average (182 per cent in 2019). There are no signs of short-term liquidity risks for open-end alternative funds (Figure 2.28.b); only in the event of persistent outflows on a time horizon of between six months and one year might there be a slight mismatch between asset liquidity and redemptions for investors, equal to about 4 per cent of the securities portfolio.[37]

Figure 2.28

Indicators for Italian alternative funds (1)



Sources: Supervisory reports and data sent pursuant to the AIFMD.
(1) The figure is constructed on the basis of supervisory reports and data sent under Directive 2011/61/EU, the Alternative Investment Fund Managers Directive (AIFMD); this requires the managers of such funds to regularly provide the competent authorities with information on their main instruments and exposures. – (2) The ratio between net exposure calculated under the commitment method and the net assets of alternative funds managed by Italian asset management companies. The category 'other' includes funds that provide direct financing or buy credit from other financial intermediaries and those not included in the other categories according to the criteria adopted by ESMA. – (3) For each period, the liquidity mismatch is the difference between the liquidity of the securities portfolio, equal to the average share of the securities portfolio that the open-end funds can liquidate by that date, and the liquidity profile for investors, equal to the average share of assets that investors in such funds can redeem in the same period.

In the second half of 2020, the Italian property fund segment began to expand again. Assets reached €98 billion in December, with an increase of 10 per cent compared with the end of 2019, in line with the sectors of the other euro-area countries (Figure 2.29.a). This growth, which only involved

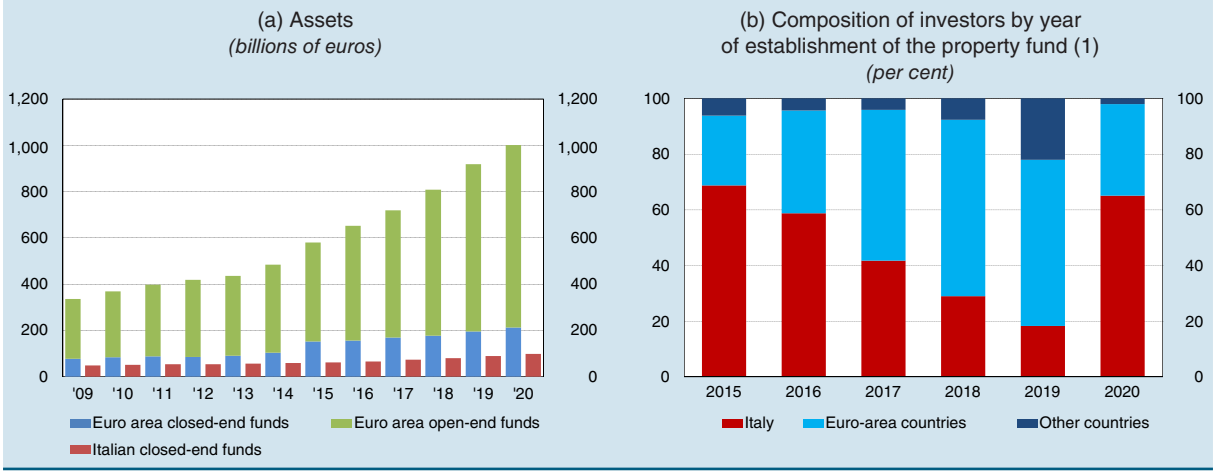
[36] Decree Law 34/2020 (the 'Relaunch Decree') extended the fiscal benefits included in the legislation for ordinary PIRs to savings plans that invest at least 70 per cent of their total asset value in financial instruments, including unlisted ones, issued by companies that are not on the FTSE MIB and FTSE Mid Cap indexes on the Italian stock exchange (Borsa Italiana) or on equivalent indices (see *Financial Stability Report*, 2, 2020).

[37] The average liquidity mismatch in each period is calculated as the difference between the average share of the securities portfolio that the funds can liquidate by that date and the average share of assets that investors in such funds can redeem in the same period (see note (3) to Figure 2.28). The estimate does not take account of any current account holdings.

funds reserved to professional investors, was mainly supported by Italian investors[38] (Figure 2.29.b) and was concentrated in the provinces of Milan and Rome, where about two thirds of the investments of funds established during the year were made.

Figure 2.29

Italian property funds



Source: Supervisory reports.
(1) Share of net assets subscribed by the different categories of investors.

The segment of listed property funds offered to retail investors, which account for 2 per cent of the sector's total net assets, was affected towards the end of the year by a legislative measure that made it possible to postpone on an ad hoc basis the duration of the funds closest to maturity to no later than 31 December 2022.[39] Exercising this option allows fund managers to distribute the schedules for selling assets still in the portfolios over a longer timespan: in some cases, these schedules have been affected by the negative repercussions of the public health emergency on the property market. Three funds, with total net assets below €500 million, have made use of the option granted.

The risks to financial stability connected with property funds remain limited. Italian funds are not subject to the liquidity risk deriving from high demand for redemptions, as national legislation requires them to be closed-end. The negative effects of the pandemic have led to modest portfolio write-downs overall (Figure 2.30.a). In 2020, funds with negative net assets, whose assets account for just under 2 per cent of the sector's total, were all reserved to professional investors.

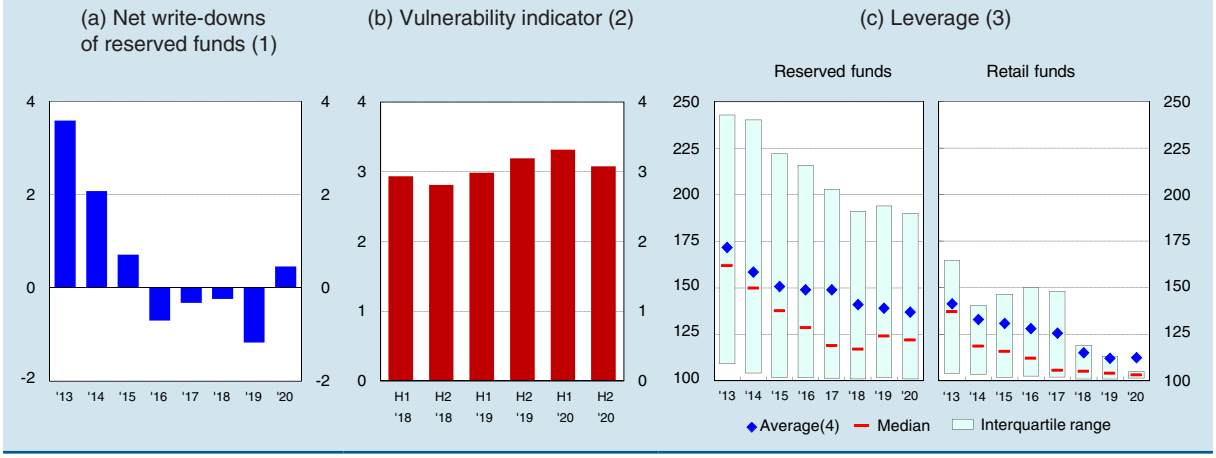
The risk that, at maturity, the valuation of the property portfolio entered on the funds' books may diverge significantly from market values, remains low. In December, only 3.1 per cent of the total net assets of the funds analysed were estimated to have a difference between the book value and the market value of the properties greater than net assets (Figure 2.30.b). Financial leverage has remained at historically low levels (Figure 2.30.c). The overall exposure of the financial system to this sector is still limited (around 1 per cent of total loans).

[38] Operators believe that the conditions of uncertainty caused by the pandemic have encouraged foreign institutional investors, such as pension funds and sovereign funds, to postpone their investment decisions.

[39] Article 19 of Decree Law 157/2020 ('Relief-*quater*' decree) makes exercising the powers of extension subject to three conditions: (a) prior approval of the meeting of the funds' shareholders; (b) the reduction of annual management fees by two thirds compared with the original fees; and (c) a ban on drawing incentive fees.

Figure 2.30

Main indicators for Italian property funds
(per cent)



Sources: Supervisory reports and calculations based on data from Istat and the Osservatorio del Mercato Immobiliare (OMI).
(1) Ratio of reserved fund balance sheet write-downs net of revaluations to the average of total assets at the end of the reference year and at the end of the previous year. – (2) Share of the sector's net assets held by property funds for which we estimate that the difference between the book value and the market value of the properties is greater than net assets. For each fund, we calculate the difference between the fund's cumulative net write-downs in relation to its assets and the cumulative variations of a theoretical price index for the properties in the portfolio. This index is calculated as the weighted average of the price indices for properties (divided into residential and commercial) by region. The weights are equal to the shares of the assets of each fund that are invested in the markets included in the price indices under consideration. Write-downs and variations in the indices are calculated from the year that each fund was established or from 2009 (the year in which data became available) if the fund was set up prior to that date. Excludes funds in liquidation and those set up in the half year prior to the reference period. – (3) Ratio of total assets to net assets. – (4) Weighted average with weights equal to the denominator of each ratio.

3 MACROPRUDENTIAL MEASURES

The macrofinancial cycle in Italy is being affected by the economic repercussions of the COVID-19 epidemic and by the measures taken by the authorities to promote the flow of liquidity to firms. In the fourth quarter of 2020, the credit-to-GDP gap (see Section 1.1) turned positive, owing not only to strong growth in bank loans driven by the provision of public guarantees, but also to the further contraction of GDP, following the second wave of the pandemic. Moreover, the real indicators linked to trends in macroeconomic and financial conditions, though influenced by the measures adopted to combat the crisis, point to the underlying weakness of the macrofinancial cycle. The moratorium measures continue to have a favourable impact on the percentage of non-performing loans to firms, while the increase in the unemployment rate has been curbed by ample recourse to social safety nets and the ongoing freeze on dismissals.

The Bank of Italy accordingly kept the countercyclical capital buffer (CCyB) at zero per cent in the first two quarters of 2021 (Table 3.1).[1]

Table 3.1

Recent macroprudential policy decisions of the Bank of Italy (1)

Date	Decision	Capital requirement for this year *(per cent)*	Fully phased-in capital requirement *(per cent)* (2)
30.11.2020	Identification of the UniCredit, Intesa Sanpaolo, Banco BPM and Monte dei Paschi di Siena banking groups as O-SIIs authorized to operate in Italy and setting of the related capital requirement ratios:		
	UniCredit	1.00	1.00
	Intesa Sanpaolo	0.75	0.75
	Banco BPM	0.19	0.25 (2022)
	Banca Monte dei Paschi di Siena	0.19	0.25 (2022)
4.12.2020	Identification of the UniCredit Group as a G-SII and setting of the related capital requirement ratio (3)	1.00	1.00 (2022)
18.12.2020	Setting of the CCyB rate for the first quarter of 2021	0.00	–
26.3.2021	Setting of the CCyB rate for the second quarter of 2021	0.00	–

(1) The dates given are those on which the decisions were published. For a complete list of the macroprudential policy decisions of the Bank of Italy, see the Bank's website. – (2) In brackets, the year of full implementation. – (3) In accordance with European legislation, the UniCredit Group will apply only the higher of the G-SII and the O-SII requirements.

[1] For details on the main macroprudential instruments for the banking system, see Table A8 in Selected Statistics. For an international comparison of macroprudential capital buffers, see Table A9 in Selected Statistics.

Last December, the Bank of Italy confirmed the designation of the UniCredit Group as a global systemically important institution (G-SII). The methodology used to identify and classify G-SIIs, which was established by European law based on international standards,[2] relies on a range of indicators, including size, complexity, and their degree of interconnectedness and internationalization. Taking account of the data at 31 December 2019, the UniCredit Group remained in the first subcategory of global systemic importance (which envisages the less stringent requirement). Accordingly, as of 1 January 2022, the group will be required to continue to maintain an additional capital buffer of 1 per cent of its total risk-weighted exposures.

At domestic level, the Bank of Italy also confirmed the designation of the UniCredit, Intesa Sanpaolo, Banco BPM and Banca Monte dei Paschi di Siena banking groups as other systemically important institutions (O-SIIs) for 2021. The indicators used, set out in the EBA Guidelines, consider four characteristics: size, importance for the national economy, complexity and interconnectedness with the financial system.[3] For all four banking groups, the transitional period that had previously been established was confirmed. UniCredit and Intesa Sanpaolo were expected to have built up additional buffers equal to 1.00 and 0.75 per cent of total risk-weighted exposures by 1 January 2021, while Banco BPM and Monte dei Paschi di Siena were expected to have built up additional buffers of 0.25 per cent of risk-weighted assets by 1 January 2022 (see Table 3.1). The impact of the additional capital buffer for the O-SII banks is nil for UniCredit, which must also maintain the capital buffer for G-SII banks.[4]

The pandemic has underscored the importance of maintaining sufficient capital reserves in the banking sector that can be released by the authorities if and when this is deemed necessary. At the end of 2019, the European macroprudential authorities had little scope for releasing these buffers: only twelve EU countries[5] had introduced or announced the introduction of a positive countercyclical capital buffer. In the euro area in particular, these buffers amounted to just 0.2 per cent of risk-weighted assets, while the structural buffers,[6] which in theory could not be released, stood at 3.4 per cent.[7] The current imbalance between the cyclical and structural buffers suggests the need to amplify what is commonly called the macroprudential space, i.e. the availability of buffers that can be released by macroprudential authorities to cope with adverse shocks (see the box 'The creation of macroprudential space').

THE CREATION OF MACROPRUDENTIAL SPACE[1]

In times of crisis, it is vital that the banking system as a whole maintains a sufficient supply of credit, including to prevent procyclical effects. When the health emergency arose, the system found itself in a position of greater strength compared with the 2008 financial crisis, benefiting from the prudential safeguards introduced since then. To support the flow of credit to the real

[1] By Maddalena Galardo and Giacomo Manzelli.

[2] See Commission Delegated Regulation (EU) No 1222/2014, containing provisions consistent with those set out by the Basel Committee on Banking Supervision (BCBS) and by the FSB.

[3] EBA, 'Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)', 16 December 2014. The Bank of Italy decided not to use optional indicators or to alter the threshold of 350 basis points set by the EBA for the identification of O-SIIs.

[4] In accordance with European legislation, for banks that must meet both a G-SII and O-SII requirement, only the higher of the two shall apply.

[5] Belgium, Bulgaria, the Czech Republic, Denmark, France, Germany, Ireland, Lithuania, Luxembourg, the United Kingdom, Slovakia and Sweden.

[6] The structural buffers include the capital conservation buffer, the G-SII and O-SII buffers and the systemic risk buffer.

[7] For further details, see L. De Guindos, 'Macroprudential policy after the Covid-19 pandemic', 1 March 2021.

economy, several authorities intervened, either by releasing capital buffers built up previously, in particular the countercyclical capital buffer, or by calling on banks to utilize[2] buffers which – though they could not technically be released – could nonetheless be eroded, at least temporarily, such as the capital conservation buffer. For more details, see the boxes 'The macroprudential measures adopted in the European Union in response to the spread of COVID-19' and 'Global measures to support financial stability', *Financial Stability Report*, 1, 2020).

At international level, analyses have begun to assess the efficacy of the measures taken, with a special focus on disincentives to using the current capital buffers on the part of banks.

Several factors could lead intermediaries to make limited use of these buffers. These include: (a) the consequences of a failure to meet the combined buffer requirement (CBR), in terms of limits on the distribution of dividends to shareholders, the payment of coupons on Additional Tier 1 (AT1) capital instruments and the variable component of employees' salaries; (b) the adverse reaction of the markets, which could interpret the bank's failure to comply with the prudential limits as a situation of grave difficulty (market stigma); and (c) overlap with other regulatory provisions, such as the leverage ratio and the MREL which, when the CBR is reduced, could become binding for banks.

The various forums for international cooperation and regulation have begun to assess the possibility of expanding the existing macroprudential space, with the aim of expanding the set of instruments available to the authorities to mitigate procyclical risks. One option could be to change the current regulatory arrangements, revising the balance between structural buffers and those that can be released, while keeping overall capital requirements unaltered. The release of a buffer would avoid the application of the restrictions – such as on the distribution of dividends, the payment of coupons on AT1 instruments and the variable component of salaries – which could be a disincentive to using the capital buffer.

To increase the current macroprudential space, the idea was recently discussed of permitting all or part of the capital conversation buffer (CCB) to be released during a serious recession or banking sector crisis.[3] The decision about the release of the buffer and its subsequent reconstitution would be centralized at European level, in order to guarantee a uniform approach to the use of the instrument.

Any change to the current regulatory framework calls for careful evaluation. The review of macroprudential arrangements by the European Commission, scheduled to take place in 2022, could be the right time to introduce new rules aimed at increasing the instruments available to the macroprudential authorities.

[2] 'Utilizing' a capital buffer refers to the circumstance in which a bank's capital position is such that it can no longer meet the minimum requirements set out for maintaining that buffer, in order to absorb losses realized and/or maintain a steady supply of credit to the economy.

[3] For more information, see L. de Guindos, 'Macroprudential policy after the Covid-19 pandemic', 1 March 2021.

To increase the instruments available for safeguarding financial stability, irrespective of the current pandemic crisis, in line with the recommendations of the International Monetary Fund[8] and with what has already been established in the other EU countries, the Bank of Italy decided to change the current banking regulations to allow the activation of the systemic risk buffer (SyRB) and of macroprudential

[8] IMF, *Italy. Financial system stability assessment*, IMF Country Report, 20/81, March 2020.

instruments based on the characteristics of borrowers or loans (see the box 'The introduction of new macroprudential instruments in Italy'). The Bank of Italy will activate the SyRB and the borrower-based measures if necessary.

THE INTRODUCTION OF NEW MACROPRUDENTIAL INSTRUMENTS IN ITALY[1]

The SyRB was introduced into European legislation by Directive 2013/36/EU (Capital Requirements Directive, CRD IV), to address non-cyclical systemic risks, including for subsets of banks.

Directive 2019/878/EU (CRD V) established new rules on macroprudential instruments, most of which have already entered into effect this year. In particular, CRD V increases flexibility in the use of the SyRB, permitting its application to a subset of exposures[2] and extending its use to address any macroprudential risk, including cyclical ones, not already covered by the CCyB or the G-SII/O-SII buffers.[3] With the introduction of the sectoral use of the SyRB, the number of harmonized macroprudential instruments that can be used to deal with the risks stemming from the real estate sector has increased.

European legislation has left the introduction of the SyRB into national law to the discretion of Member States. As part of the transposition of CRD V, on which a public consultation has begun,[4] the Bank of Italy decided to also adopt the SyRB, which will be activated if and when the macrofinancial conditions require it to do so.[5]

The Bank also decided to introduce borrower-based macroprudential instruments into regulations.[6] These instruments, which are not harmonized at European level, aim to strengthen the resilience of the financial system by imposing limits on borrowers' risk-taking. These limits can refer to the financial situation of borrowers themselves or to characteristics of the loan granted,[7] thereby limiting the excessive growth of the riskiest exposures.

In particular, if deemed necessary to preserve the stability of the national financial system, the Bank of Italy can impose a number of restrictions on new loans. These include limits on: the loan-to-value (LTV) ratio and the loan-to-income (LTI) ratio; the debt-to-income (DTI) ratio and the debt service-to-income (DSTI) ratio; leverage, and; the maximum maturity and amortization requirements of loans. Using targeted measures to address specific vulnerabilities that may arise, the caps can be applied:

1 By Wanda Cornacchia.

2 Regarding the SyRB's sectoral use, Article 133 (5) of CRD V, provides for its applicability to: (a) two categories of exposure referring to the 'property sector' and 'all the rest', subdivided in turn between natural and legal persons; (b) subsets of the two categories indicated in (a), for which the EBA has recently issued guidelines. For the various subsets of banks and exposures, different rates can be introduced.

3 The SyRB is always in addition to these buffers, with an upper threshold of 5 per cent, which can only be exceeded if authorized by the European Commission.

4 For further details, see on the Bank of Italy's website the consultation document outlining its provisions on 'Capital buffers and borrower-based macroprudential instruments' (only in Italian).

5 By virtue of the combined provisions of Articles 5, 53, and 53-*ter* of the Consolidated Law on Banking (TUB), the Bank of Italy can introduce the SyRB into national law without requiring additional legislative acts, by adding to the supervisory provisions.

6 Articles 5, 53, 53-*ter* and 67 of the TUB permit the adoption of borrower-based macroprudential measures by the Bank of Italy.

7 For more details on the different instruments adopted in the EU, see the box 'The borrower-based macroprudential measures adopted in the European Union', *Financial Stability Report*, 2, 2019.

(a) to loans to households and firms; (b) with or without exemption thresholds; (c) in the same way to all loans or differentiating based on borrowers' and loans' characteristics;[8] (d) at national level or for specific geographical areas; (e) alone or in combination; (f) if this is deemed opportune, also simultaneously with other types of macroprudential instruments.

The Bank of Italy can, at any time, add to or modify the list of borrower-based measures under national legislation, taking account of developments in the real estate market and the capacity of the existing macroprudential measures to avert potential systemic vulnerabilities.

[8] In particular, specific measures can be applied based on the: (a) borrower category (households and firms); (b) purpose of the loan; (c) sector of economic activity in the case of legal persons; (d) risk category of the entity; (e) type of guarantee (residential or commercial property or other type of guarantee); (f) other characteristics of the loans.

SELECTED STATISTICS

CONTENTS

A1	Financial sustainability indicators	67
A2	Italian banks' non-performing loans and guarantees by counterparty sector	68
A3	Exposures of Italian groups and banks to foreign residents by counterparty sector	69
A4	Investment by Italian and euro-area banks in public sector securities issued in the banks' country of residence	70
A5	Italian banks' bonds by holder and maturity	71
A6	Composition of the assets deposited with the Bank of Italy as collateral for Eurosystem credit operations (collateral pool)	72
A7	Italian banks' net liquidity position	73
A8	Main macroprudential instruments for the banking sector	74
A9	Macroprudential capital buffers in the countries of the European Economic Area	75

Table A1

Financial sustainability indicators

(per cent of GDP, unless otherwise specified)

	GDP (1) (annual growth rate)		Characteristics of public debt (2)				Primary surplus (2)	S2 sustainability indicator (3)	Private sector financial debt (4)		External position statistics (5)	
			Level		Average residual life of govt. securities *(years)*	Non-residents' share *(% of public debt)*			House-holds	Non finan-cial firms	Current account balance	Net international investment position
	2021	2022	2021	2022	2021	2020	2021	2020	2020	2020	2020	2020
Italy	4.2	3.6	157.1	155.5	6.8	33.9	-5.6	1.1	45.2	76.9	3.6	1.8
Germany	3.6	3.4	70.3	67.3	5.9	57.2	-5.0	2.1	58.8	73.2	7.0	76.3
France	5.8	4.2	115.2	114.3	7.8	60.5	-6.0	-1.1	68.8	171.1	-1.9	-26.7
Spain	6.4	4.7	118.4	117.3	7.5	53.7	-7.0	0.2	62.5	107.7	0.7	-84.3
Netherlands	3.5	3.0	56.1	56.1	7.5	49.5	-4.1	3.3	104.5	152.2	7.8	114.8
Belgium	4.0	3.1	115.9	116.2	10.0	68.6	-5.9	3.7	67.8	166.2	-0.2	45.1
Austria	3.5	4.0	87.2	85.7	10.4	75.3	-5.5	2.4	53.9	99.6	2.5	11.0
Finland	2.3	2.5	68.8	69.2	6.3	69.0	-4.3	3.2	69.2	122.9	0.3	1.0
Greece	3.8	5.0	210.1	200.5	....	....	-6.0	....	60.1	66.1	-6.7	-176.4
Portugal	3.9	4.8	131.4	125.6	6.4	57.2	-2.4	-1.5	68.3	103.4	-1.2	-105.4
Ireland	4.2	4.8	63.2	63.2	10.8	74.8	-4.4	2.4	35.3	189.7	4.6	....
Euro area	4.4	3.8	98.2	96.5	....	....	-5.5	1.2	62.7	115.5	2.2	0.8
United Kingdom	5.3	5.1	107.1	109.1	14.8	34.1	-10.6	....	88.9	77.9	-3.9	-24.6
United States	6.4	3.5	132.8	132.1	5.8	25.9	-13.3	....	78.0	83.5	-3.9	-66.6
Japan	3.3	2.5	256.5	253.6	8.2	0.0	-8.9	....	64.3	114.2	3.6	73.0
Canada	5.0	4.7	116.3	112.8	5.4	22.3	-7.0	....	110.4	131.2	-0.8	50.8

Source: IMF, ECB, BIS, European Commission.
(1) IMF, *World Economic Outlook*, April 2021. – (2) IMF, *Fiscal Monitor*, April 2021. – (3) European Commission, *Debt Sustainability Monitor 2020*, January 2021. S2 is a sustainability indicator defined as the immediate and permanent increase in the structural primary surplus that is necessary to meet the general government inter-temporal budget constraint. – (4) Loans and securities. Data for the euro area countries are from ECB, Statistical Data Warehouse and refer to the end of Q4 2020; data for the United Kingdom and non-European countries are from BIS statistics and refer to the end of Q3 2020. – (5) The data refer to Q3 2020. Data for the euro area countries are from ECB, Statistical Data Warehouse; data for the United Kingdom and non-European countries are from IMF Data Warehouse.

Table A2

Italian banks' non-performing loans and guarantees by counterparty sector (1)
(billions of euros; per cent; December 2020)

	Gross exposures	Share of total gross loans (2)	Net exposures	Share of total net loans (2)	Collateral (3)	Personal guarantees (3)	Coverage ratio for unsecured loans
				Firms (4)			
Non-performing customer loans	67	9.6	29	4.4	32	13	64.3
of which: manufacturing	14	6.8	5	2.7	4	3	68.6
construction (5)	17	24.8	7	12.4	10	3	64.3
services	33	8.7	15	4.2	16	7	61.8
of which: bad loans	33	4.6	10	1.6	15	8	76.2
of which: manufacturing	6	3.2	2	1.0	2	2	77.3
construction (5)	8	12.2	3	4.8	4	2	75.6
services	16	4.2	5	1.5	7	4	75.7
				Consumer households			
Non-performing customer loans	20	3.8	10	2.1	13	1	65.7
of which: bad loans	9	1.8	4	0.7	6	0	78.3
				Total (6)			
Non-performing customer loans	93	6.0	42	2.9	47	14	63.2
of which: bad loans	43	2.8	15	1.0	21	9	76.4

Source: Individual supervisory reports.
(1) The data are from non-consolidated balance sheets that do not include loans granted by financial corporations belonging to a banking group or by foreign subsidiaries of Italian groups. Includes 'non-current assets held for sale', which at the end of December 2020 came to about €6 billion for the total amount of non-performing loans gross of provisions. Provisional data. – (2) Calculated, gross and net of the relative loan loss provisions, as a percentage of the total corresponding gross and net exposures to the individual sector or sub-sector. – (3) The amounts correspond to the gross exposure that is collateralized or backed by personal guarantees. – (4) In addition to manufacturing, construction and services, the 'firms' sector also comprises agriculture, forestry, fishing and industrial activities other than manufacturing. – (5) Includes real estate activities. – (6) Includes general government, financial and insurance corporations, non-profit institutions serving households, and non-classifiable and unclassified entities.

Table A3

Exposures of Italian groups and banks to foreign residents by counterparty sector (1)
(billions of euros; per cent; December 2020)

	Public sector	Banks	Financial corporations	Households and firms	Total	Per cent of total exposures reported to the BIS (2)	Per cent of total exposures (3)
Euro area (excluding Italy)	201.2	59.5	47.5	206.2	514.4	9.1	18.4
Other industrialized countries	34.9	18.4	28.0	32.0	113.4	1.0	4.1
of which: United Kingdom	0.6	8.0	16.1	6.9	31.6	1.5	1.1
Emerging and developing countries	54.3	16.2	4.9	86.1	161.5	3.8	5.8
Europe	40.8	8.6	3.7	74.7	127.8	14.2	4.6
of which: Russia	1.3	3.4	0.3	14.1	19.1	22.6	0.7
Turkey	0.5	2.8	0.3	1.8	5.4	4.5	0.2
Africa and the Middle East	10.1	2.1	0.2	6.0	18.4	3.5	0.7
Asia and Pacific	2.2	3.5	1.0	3.6	10.3	0.5	0.4
Central and South America	1.1	2.0	0.1	1.8	5.0	0.6	0.2
of which: Argentina	0.0	0.0	0.0	0.0	0.0	0.1	–
Brazil	0.1	1.8	0.0	0.5	2.4	0.8	0.1
Messico	0.4	0.0	0.0	1.0	1.4	0.5	0.1
Offshore centres	0.2	0.2	2.1	4.8	7.3	0.3	0.3
Total	**290.6**	**94.4**	**82.6**	**329.1**	**796.6**	**3.2**	**28.6**
Memorandum item:							
Energy-exporting emerging and developing countries (4)	7.5	5.2	0.4	17.0	30.0	5.9	1.1

Source: Consolidated supervisory reports for banking groups, individual supervisory reports for the rest of the system.
(1) Exposures to 'ultimate borrowers', gross of bad loans and net of provisions. Does not include BancoPosta and Cassa Depositi e Prestiti SpA. – (2) As a percentage of the total foreign exposures to each country reported to the Bank for International Settlements (BIS) by a large set of international banks. The numerator and denominator refer to 30 September 2020. – (3) Total exposures to residents and non-residents. The numerator and denominator refer to 31 December 2020. – (4) Includes: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei, Chad, Colombia, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, Russia, Saudi Arabia, Sudan, Timor Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela, Yemen.

Table A4

Investment by Italian and euro-area banks in public sector securities issued in the banks' country of residence (1)

(millions of euros; per cent)

	Italy (2)			Euro area		
	Stocks	Net purchases	Share of total assets (3)	Stocks	Net purchases (1)	Share of total assets
2012	322,686	90,128	8.9	1,251,226	213,410	3.8
2013	375,081	45,331	10.9	1,313,179	46,354	4.3
2014	383,645	-4,299	11.0	1,370,728	6,792	4.4
2015	364,361	-20,898	10.6	1,295,539	-67,495	4.2
2016	333,329	-26,646	9.8	1,205,130	-89,282	3.89
2017 – Jan.	336,266	6,586	10.0	1,198,661	1,496	3.9
Feb.	339,458	2,996	10.0	1,201,775	1,902	3.8
Mar.	349,081	10,286	10.1	1,205,394	4,622	3.8
Apr.	350,322	2,508	10.2	1,201,813	-3,846	3.8
May	341,318	-9,751	10.1	1,194,047	-8,922	3.8
June	323,068	-19,751	9.5	1,160,056	-33,965	3.7
July	326,959	3,629	9.6	1,150,184	-10,258	3.7
Aug.	325,690	-1,361	9.7	1,155,126	3,749	3.7
Sept.	319,447	-5,658	9.5	1,144,864	-7,585	3.7
Oct.	309,543	-11,993	9.2	1,120,116	-21,698	3.6
Nov.	295,727	-14,557	8.7	1,108,684	-13,849	3.6
Dec.	283,734	-9,649	8.5	1,074,168	-31,628	3.5
2018 – Jan.	293,267	9,483	8.7	1,094,905	20,592	3.6
Feb.	295,690	2,591	8.9	1,092,268	-1,692	3.6
Mar.	296,365	-1,311	8.8	1,083,121	-13,458	3.5
Apr.	298,592	2,074	8.8	1,073,878	-9,494	3.5
May	307,126	22,572	9.0	1,085,979	30,517	3.5
June	321,700	12,693	9.5	1,093,859	4,581	3.5
July	324,557	3,727	9.7	1,088,853	-3,398	3.5
Aug.	317,692	559	9.5	1,078,814	359	3.5
Sept.	320,687	-334	9.5	1,073,697	-9,145	3.5
Oct.	323,906	5,530	9.7	1,068,237	-2,849	3.4
Nov.	328,468	1,879	9.9	1,073,916	2,522	3.4
Dec.	318,441	-15,491	9.7	1,054,143	-26,687	3.4
2019 – Jan.	330,049	9,380	10.0	1,086,006	28,727	3.4
Feb.	334,307	6,472	10.1	1,104,028	21,349	3.5
Mar.	333,046	-3,476	9.9	1,094,497	-13,304	3.4
Apr.	339,415	6,267	10.1	1,086,941	-8,084	3.4
May	336,450	-936	10.0	1,094,951	9,073	3.3
June	330,770	-11,365	9.8	1,071,522	-32,205	3.3
July	339,340	3,277	10.0	1,085,098	5,424	3.3
Aug.	338,508	-4,867	9.9	1,084,151	-7,732	3.2
Sept.	333,948	-6,104	9.7	1,085,046	-1,957	3.2
Oct.	330,790	-2,154	9.6	1,064,178	-18,524	3.2
Nov.	323,092	-4,505	9.5	1,048,164	-10,878	3.1
Dec.	313,293	-9,807	9.4	1,030,977	-16,546	3.2
2020 – Jan.	315,837	-881	9.5	1,027,968	-9,501	3.1
Feb.	320,171	6,873	9.5	1,037,546	13,050	3.1
Mar.	335,699	19,784	9.9	1,084,606	55,092	3.1
Apr.	351,981	18,988	10.3	1,158,270	77,913	3.3
May	362,747	7,712	10.5	1,214,418	50,143	3.5
June	363,134	-3,014	10.3	1,224,174	3,949	3.5
July	369,127	3,147	10.9	1,210,063	-18,098	3.4
Aug.	373,068	4,562	11.1	1,222,794	10,433	3.5
Sept.	372,544	-2,926	11.0	1,227,113	143	3.5
Oct.	368,289	-5,053	10.7	1,201,211	-27,575	3.4
Nov.	357,438	-12,566	10.3	1,185,247	-18,704	3.3
Dec.	342,813	-14,720	10.0	1,145,233	-40,502	3.3
2021 – Jan.	350,768	9,154	10.2	1,154,406	10,800	3.2
Feb.	357,316	8,048	10.4	1,174,250	23,621	3.3

Sources: Individual supervisory reports and ECB.

(1) The data on net purchases refer to the whole period; the data on stocks and share of total assets refer to the end of the period. Purchase amounts are shown net of variations in market prices; holdings are shown at market value. All public sector securities are counted, including those issued by local government authorities. – (2) Cassa Depositi e Prestiti SpA is excluded. – (3) The 'total assets' series does not include bond repurchases.

Table A5

Italian banks' bonds by holder and maturity (1)
(millions of euros; March 2021)

		Maturity					Total
		by 2021	by 2022	between 2023 and 2024	between 2025 and 2029	beyond 2030	
Households (2)		5,882	9,885	13,049	16,622	664	46,101
of which:	senior non preferred bonds	–	8	14	41	2	66
	subordinated bonds	941	1,538	933	3,141	249	6,803
Banks in the issuer's group (3)		1,776	3,618	4,691	10,023	296	20,405
of which:	senior non preferred bonds	–	–	12	-6	–	6
	subordinated bonds	32	60	434	192	294	1,011
Other Italian banks		2,332	5,349	8,700	8,860	1,195	26,437
of which:	senior non preferred bonds	–	69	403	739	11	1,222
	subordinated bonds	39	59	120	746	171	1,135
Other investors		12,417	32,043	42,231	67,614	18,988	173,295
of which:	senior non preferred bonds	–	758	2,206	4,212	721	7,898
	subordinated bonds	973	1,927	3,683	10,703	7,520	24,806
Total		**22,407**	**50,896**	**68,672**	**103,119**	**21,144**	**266,238**
of which:	senior non preferred bonds	–	**836**	**2,635**	**4,987**	**735**	**9,192**
	subordinated bonds	**1,984**	**3,584**	**5,169**	**14,783**	**8,235**	**33,755**

Source: Individual supervisory reports.
(1) Data are indicated at nominal value and refer to bonds entered on the liability side, net of buybacks by the issuer. Rounding may cause discrepancies in the totals. – (2) Consumer and producer households and non-profit institutions serving households. Only resident customers. – (3) Resident banks belonging to the issuer's banking group.

Table A6

Composition of the assets deposited with the Bank of Italy as collateral for Eurosystem credit operations (collateral pool) (1)

(billions of euros; end-of-period values)

	2014	2015	2016	2017	2018	2019	2020		2021
							June	December	March
Total	**283.5**	**253.7**	**297.3**	**321.2**	**310.5**	**285.8**	**422.8**	**436.1**	**496.5**
Government securities	119.8	97.6	88.8	105.8	78.0	68.1	132.8	129.4	171.5
Local and regional government securities	2.9	2.6	1.7	1.9	1.3	0.5	0.8	0.8	1.7
Uncovered bank bonds	10.4	5.8	5.3	5.4	5.0	3.3	5.0	5.4	6.5
Government-guaranteed bank bonds	15.0	0.4	0.3	1.3	2.5	1.0	0.9	0.6	0.6
Covered bonds	49.8	46.4	76.3	76.8	91.3	86.1	104.4	99.8	102.5
Non-bank bonds	1.0	2.5	3.0	3.0	4.3	3.7	5.2	4.9	7.2
Asset-backed securities	40.0	35.5	44.0	49.9	49.7	47.7	46.0	45.5	52.0
Other marketable assets	0.4	0.6	0.8	2.8	1.3	1.8	2.9	2.6	3.6
Non-negotiable assets (bank loans)	44.3	62.4	77.1	74.3	77.1	73.6	124.8	147.1	150.9

Source: based on Eurosystem data.
(1) The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts.

Table A7

Italian banks' net liquidity position (1)
(monthly average share of total assets)

	Significant groups			Less significant groups		
	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)	Cumulative cash flow (2)	Counterbalancing capacity	Liquidity indicator (3)
2017 – Jan.	-2.1	14.2	12.1	-5.2	19.3	14.1
Feb.	-2.4	14.8	12.4	-5.3	19.3	14.1
Mar.	-1.5	13.6	12.1	-2.9	17.6	14.7
Apr.	-0.3	13.0	12.7	-5.0	20.6	15.6
May	-0.4	13.7	13.3	-4.1	19.5	15.4
June	-0.4	14.0	13.6	-3.5	18.8	15.3
July	0.0	13.5	13.5	-3.7	18.6	14.9
Aug.	0.0	13.9	13.9	-3.4	18.8	15.4
Sept.	0.6	13.5	14.1	-2.7	18.9	16.2
Oct.	0.5	13.2	13.7	- 1.1	18.1	17.0
Nov.	1.0	13.4	14.4	-0.7	17.3	16.6
Dec.	0.2	13.5	13.7	-0.7	16.8	16.1
2018 – Jan.	0.8	12.1	12.9	-0.5	16.1	15.6
Feb.	0.3	13.2	13.5	-1.0	16.7	15.8
Mar.	0.6	13.5	14.1	-2.0	18.7	16.7
Apr.	0.7	13.5	14.2	-3.0	19.9	16.8
May	-0.2	14.1	13.9	-5.3	21.3	16.0
June	-1.2	14.1	12.9	-5.5	20.7	15.2
July	-1.3	13.9	12.5	-4.3	20.0	15.7
Aug.	-0.9	13.9	13.0	-5.2	20.8	15.6
Sept.	-0.2	13.7	13.5	-5.9	21.9	16.0
Oct.	-0.1	13.4	13.3	-4.9	20.5	15.6
Nov.	0.1	13.5	13.6	-4.7	20.0	15.2
Dec.	0.1	13.6	13.7	-5.9	20.2	14.3
2019 – Jan.	-0.5	13.8	13.3	-6.6	20.2	13.6
Feb.	-0.5	14.6	14.1	-5.9	19.1	13.1
Mar.	-0.6	15.0	14.4	-5.8	19.5	13.7
Apr.	0.2	15.6	15.8	-5.8	19.8	13.9
May	0.3	15.8	16.0	-5.5	19.7	14.2
June	0.0	15.9	16.0	-5.3	19.8	14.5
July	0.5	16.0	16.5	-3.9	19.8	15.9
Aug.	0.7	16.3	17.1	-3.5	20.4	16.9
Sept.	1.6	16.6	18.3	-3.6	21.0	17.4
Oct.	1.6	16.7	18.3	-3.2	20.7	17.6
Nov.	0.3	18.2	18.5	-3.8	21.5	17.7
Dec.	-1.0	19.2	18.2	-5.6	21.9	16.3
2020 – Jan.	-1.1	18.6	17.5	-5.9	21.4	15.5
Feb.	-0.4	18.7	18.2	-5.9	22.1	16.1
Mar.	-0.8	18.5	17.7	-4.8	22.3	17.5
Apr.	-1.4	19.6	18.3	-4.4	22.6	18.2
May	-2.8	22.6	19.8	-6.5	25.3	18.7
June	-4.2	24.4	20.3	-7.3	26.1	18.8
July	-0.9	21.9	21.1	-4.5	25.0	20.5
Aug.	-0.9	22.4	21.6	-4.0	25.6	21.3
Sept.	-0.4	22.6	22.1	-3.6	25.1	21.5
Oct.	0.1	21.1	21.2	-2.7	23.7	21.0
Nov.	0.1	21.9	22.0	-1.9	23.3	21.5
Dec.	-0.5	22.0	21.5	-2.1	23.6	21.4
2021 – Jan.	-1.0	21.7	20.7	-3.0	23.6	20.6
Feb.	-0.7	22.0	21.3	-1.2	23.0	21.8
Mar.	0.2	21.6	21.8	-0.2	24.7	24.5

Source: Data transmitted to the Bank of Italy by a sample of banking intermediaries for periodic monitoring of their liquidity positions.
(1) Monthly averages based on weekly reports for significant banks (supervised directly by the ECB) and for a sample of less significant banks (supervised by the Bank of Italy in cooperation with the ECB). On prudential grounds it is assumed there is no rollover of maturing obligations towards institutional counterparties. – (2) Calculated as the (positive or negative) difference between outflows (negative sign) and inflows (positive sign). Outflows include maturing obligations towards institutional clients and bank estimates of expected retail customer outflows. – (3) Calculated as the (positive or negative) difference between the holdings of freely available assets eligible for use as collateral for Eurosystem refinancing operations (counterbalancing capacity) and cumulative expected net cash flows over the next 30 days.

Table A8

Main macroprudential instruments for the banking sector (1)

INSTRUMENT	PURPOSE
Instruments harmonized at European level (2)	
Countercyclical capital buffer (CCyB)	To reduce the procyclicality of the financial system by building up capital buffers during expansions in the financial cycle for absorbing potential losses during contractions
Capital buffers for global systemically important institutions and other systemically important institutions (G-SII and O-SII buffers)	To increase the ability of systemically important institutions to absorb losses
Systemic risk buffer (SyRB)	To avert or mitigate long-term structural systemic risks
Higher capital requirements for exposures to the real estate sector	To avert or mitigate systemic risks stemming from exposures to the real estate sector
Instruments not harmonized at European level (3)	
Limits on loan-to-value, loan-to-income, and debt-service-to-income ratios	To smooth the credit cycle and to increase the resilience of banks, by reducing risk-taking by borrowers

(1) For a more detailed list of the instruments, see Recommendation ESRB/2013/1 issued by the European Systemic Risk Board (ESRB). – (2) Provided for in Directive 2013/36/ EU (Capital Requirements Directive, CRD IV) on the taking up of the business of credit institutions and on the prudential supervision of credit institutions and investment firms; Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) on prudential requirements for credit institutions and investment firms. – (3) Instruments not envisaged under EU legislation but which can be activated in individual member states based on national legislation, where this is permitted. The list is not exhaustive.

Table A9

Macroprudential capital buffers in the countries of the European Economic Area
(per cent)

	Combined buffer requirement (CBR) (1)	Capital conservation buffer (CCoB)	Countercyclical capital buffer (CCyB)		Capital buffer for global systemically important institutions (G-SIIs)		Capital buffer for other systemically important institutions (O-SIIs)		Systemic risk buffer (SyRB)	
			Date of entry into force	Rate	Date of entry into force	Description	Date of entry into force	Description	Date of entry into force	Description
Austria	2.50-4.50	2.50	1 Jan. 2016	0.00			29 Dec. 2020	9 banks: 1.00-2.00	29 Dec. 2020	11 banks (includes 7 O-SIIs): 0.50-2.00
Belgium	2.50-4.00	2.50	1 Apr. 2020	0.00			1 Jan. 2021	8 banks: 0.75-1.50		
Bulgaria	6.00	2.50	1 Apr. 2020	0.50			1 July 2020	8 banks: 0.00	15 Oct. 2019	3.00 (2)
Cyprus	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.25-1.00		
Croatia	4.00-6.00	2.50	1 Jan. 2016	0.00			1 Jan. 2021	7 banks: 0.50-2.00	29 Dec. 2020	1.50
Denmark	2.50-5.50	2.50	12 Mar. 2020	0.00			30 June 2020	7 banks: (3)	1 Jan. 2019	7 O-SIIs: 1.00-3.00
Estonia	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2019	4 banks: 1.00-2.00	1 May 2020	0.00
Finland	2.50-4.50	2.50	16 Mar. 2015	0.00			6 Apr. 2020	3 banks: 0.50-2.00	6 Apr. 2020	0.00
France	2.50-4.00	2.50	1 Apr. 2020	0.00	1 Jan. 2021	4 banks: 1.00-1.50	1 Jan. 2020	6 banks: 0.25-1.50		
Germany	2.50-4.50	2.50	1 Apr. 2020	0.00	1 Jan. 2021	1 bank: 1.50	1 Jan. 2021	13 banks: 0.25-2.00		
Greece	2.50-3.00	2.50	1 Jan. 2016	0.00			1 Jan. 2021	4 banks: 0.50		
Ireland	2.50-3.50	2.50	1 Apr. 2020	0.00			1 July 2020	6 banks: 0.50-1.00		
Iceland	2.50-7.50	2.50	18 Mar. 2020	0.00			8 Apr. 2020	3 banks: 2.00	8 Apr. 2020	8 banks (includes O-SIIs): 3.00 (2)
Italy	2.50-3.50	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	1 Jan. 2021	4 banks: 0.19-1.00		
Latvia	2.50-4.50	2.50	1 Feb. 2016	0.00			8 Dec. 2020	4 banks: 1.25-2.00		

Sources: ESRB and macroprudential supervisory authorities.
(1) For each bank, the CBR is equal to the sum of the CCoB, CCyB, G-SII and O-SII buffers, and the SyRB, pursuant to Article 128(6) of CRD IV. Where a group, on a consolidated basis, is subject to the following buffers, only the highest buffer shall apply in each case: (a) a G-SII buffer and an O-SII buffer; (b) a G-SII buffer, an O-SII buffer and a systemic risk buffer (SyRB), pursuant to Article 131(14) of CRD IV. Where the SyRB applies only to domestic exposures, that SyRB shall be cumulative with the O-SII or G-SII buffer pursuant to Article 133(5) of CRD IV. In the countries where the changes introduced by CRD V have been transposed into national legislation, the SyRB is always cumulative with the higher of the G-SII or O-SII buffers pursuant to Articles 131(15) and 133(1), (7) and (8.c) of CRD IV. – (2) The SyRB applies only to domestic exposures. – (3) The O-SII buffers are not applied.

Table A9 *cont.*

Macroprudential capital buffers in the countries of the European Economic Area
(per cent)

	Combined buffer requirement (CBR) (1)	Capital conservation buffer (CCoB)	Countercyclical capital buffer (CCyB)		Capital buffer for global systemically important institutions (G-SIIs)		Capital buffer for other systemically important institutions (O-SIIs)		Systemic risk buffer (SyRB)	
			Date of entry into force	Rate	Date of entry into force	Description	Date of entry into force	Description	Date of entry into force	Description
Liechtenstein	2.50-4.50	2.50	1 July 2019	0.00			1 Jan. 2021	3 banks: 2.00	1 Jan. 2020	6 banks (includes O-SIIs): 1.00-2.00
Lithuania	2.50-4.50	2.50	1 Apr. 2020	0.00			1 Jan. 2021	3 banks: 0.50-2.00		
Luxembourg	3.00-4.00	2.50	1 Jan. 2021	0.50			1 Jan. 2021	7 banks: 0.50-1.00		
Malta	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	4 banks: 0.06-2.00		
Norway	6.50-10.00	2.50	13 Mar. 2020	1.00			1 Jan. 2021	2 banks: 1.00-2.00	31 Dec. 2020	3.00-4.50 (2) (4)
Netherlands	2.50-5.00	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	1 Jan. 2021	5 banks: 1.00-2.50	28 Dec. 2020	5 O-SIIs: 0.00
Poland	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	10 banks: 0.10-1.00	16 Mar. 2020	0.00
Portugal	2.50-3.25	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.19-0.75		
Czech Republic	3.00-6.00	2.50	1 July 2020	0.50			1 Jan. 2021	6 banks: (3)	1 Jan. 2021	5 O-SIIs: 1.00-3.00
Romania	2.50-4.50	2.50	1 Jan. 2016	0.00			1 Jan. 2020	8 banks: 1.00-2.00	1 Jan. 2019	0.00-2.00
Slovakia	3.50-5.50	2.50	1 Aug. 2020	1.00			1 Jan. 2021	5 banks: 0.25-1.00	1 Jan. 2021	3 O-SIIs: 1.00 (2)
Slovenia	2.50-3.50	2.50	1 Jan. 2016	0.00			1 Jan. 2021	6 banks: 0.25-1.00		
Spain	2.50-3.50	2.50	1 Jan. 2016	0.00	1 Jan. 2021	1 bank: 1.00	1 Jan. 2020	5 banks: 0.25-1.00		
Sweden	2.50-6.50	2.50	16 Mar. 2020	0.00			1 Jan. 2021	4 banks: 0.00-1.00	29 Dec. 2020	3 O-SIIs: 3.00
Hungary	2.50	2.50	1 Jan. 2016	0.00			1 July 2020	8 banks (3)	18 Mar. 2020	0.00

Sources: ESRB and macroprudential supervisory authorities.
(1) For each bank, the CBR is equal to the sum of the CCoB, CCyB, G-SII and O-SII buffers, and the SyRB, pursuant to Article 128(6) of CRD IV. Where a group, on a consolidated basis, is subject to the following buffers, only the highest buffer shall apply in each case: (a) a G-SII buffer and an O-SII buffer; (b) a G-SII buffer, an O-SII buffer and a systemic risk buffer (SyRB), pursuant to Article 131(14) of CRD IV. Where the SyRB applies only to domestic exposures, that SyRB shall be cumulative with the O-SII or G-SII buffer pursuant to Article 133(5) of CRD IV. In the countries where the changes introduced by CRD V have been transposed into national legislation, the SyRB is always cumulative with the higher of the G-SII or O-SII buffers pursuant to Articles 131(15) and 133(1), (7) and (8.c) of CRD IV. – (2) The SyRB applies only to domestic exposures. – (3) The O-SII buffers are not applied. – (4) For the institutions that do not follow the advanced IRB approach, the buffer is set at 3 per cent until 31 December 2022. After that date, as for all the other banks, it will be set at 4.5 per cent.

Printed on environmentally friendly paper